

NEWS

RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION
TELEPHONE:

WALLOPS ISLAND,
VALLEY 4-3411

VIRGINIA
EXTS. 584 and 579

FOR RELEASE

January 7, 1965

Release No. 65-1

CONTRACT AWARDS DURING DECEMBER, 1964

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Tate Engineering, Inc., Baltimore, Md., in the amount of \$3,560.00 for additional computer area in Building No. N-159.

-- To Southern Electronics Corp., Norfolk, Va., in the amount of \$4,014.00 for street lighting Area E.

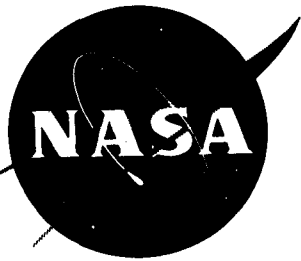
-- To Everett Corp., Chincoteague, Va., in the amount of \$7,800.00 for installation of subterranean cables.

-- To Fowler Roofing Company, Norfolk, Va., in the amount of \$17,150.00 for emergency repairs to the sounding rocket launching tower.

-- To Consolidated Electrodynamics Corp., Hampton, Va., in the amount of \$58,260.00 for recording oscillographs.

Total cost of these contracts is \$90,784.00.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION
TELEPHONE:

WALLOPS ISLAND,
VALLEY 4-3411

VIRGINIA
EXTS. 584 and 579

FOR RELEASE WEDNESDAY P.M., January 13, 1965

Release No. 65-2

NASA WALLOPS TEAM TO LAUNCH SOUNDING ROCKETS AT ALASKAN SITE

The National Aeronautics and Space Administration will begin this month a series of rocket-launched acoustic grenade experiments at Point Barrow, Alaska, to fulfill scientific requirements for upper atmospheric meteorological data within the Arctic Circle.

Point Barrow, 1,100 miles from the North Pole, is 300 miles within the Arctic Circle, at 71 degrees north latitude. This compares with 58 degrees north latitude for the Fort Churchill site in Canada which often is used for NASA-sponsored scientific rocket soundings.

The Point Barrow site will serve as a base for sounding rocket exploration and measurement of the structure and behavior of the atmosphere at altitudes of 30 to 100 kilometers (19 to 65 statute miles).

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Wind direction and velocity, atmospheric temperature, density and pressure data will be obtained from the grenade experiments. These call for ejecting and exploding 12 acoustical grenades along the trajectory of a Nike-Cajun rocket.

The location of the explosions and the sound trajectories are determined by DOVAP (Doppler Velocity And Position) tracking and a special array of five sensitive microphones.

The experiments will be continued on a quarterly basis with two or three each quarter. They will be coordinated with similar experiments at Fort Churchill, and NASA's Wallops Station, Va., to obtain nearly simultaneous measurements from different geographic areas during the various seasons.

The Alaskan effort is an extension of NASA's Meteorological Sounding Rocket Program to explore and understand the structure and behavior of the atmosphere on a global basis. The Program is conducted by Goddard Space Flight Center, Greenbelt, Md., under the guidance of the NASA Office of Meteorological Programs.

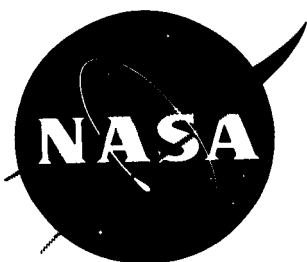
Wallops Station is responsible for technical support and operations of the Point Barrow site with the technical

guidance and financial assistance of the NASA Office of Tracking and Data Acquisition.

Project Scientist for the meteorological experiments is Wendell S. Smith of Goddard Space Flight Center. Technical supervision of facilities modifications was under the direction of Robert L. Brashears, Head of the Experimental Facilities Branch at Wallops Station. The Point Barrow operations will be directed by a Wallops Station Team headed by William L. Lord of the Program Management and Liaison Branch.

Modification of existing facilities was directed by Max Brewer, Director of the Arctic Research Laboratory at Point Barrow. The Laboratory is operated by the University of Alaska under contract with the Office of Naval Research. Dr. Max Britton directs the polar research activities of ONR.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION

WALLOPS ISLAND,

VIRGINIA

TELEPHONE:

VALLEY 4-3411

EXTS. 584 and 579

FOR RELEASE January 13, 1965

Release No. 65-3

MOTHER-DAUGHTER EXPERIMENT

FAILS TO SEPARATE

A demonstration of a new sounding technique to measure upper atmosphere characteristics was thwarted this afternoon when the two-part payload apparently refused to separate in flight as planned. The experiment was launched on a four-stage Javelin (Argo D-4) at 12:12 p.m. EST from NASA's Wallops Station, Wallops Island, Va., and reached a peak altitude of 614 statute miles.

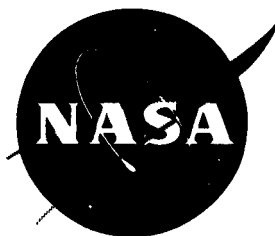
The 99-pound payload was to separate into two sections called "mother" and "daughter" at about 170 miles altitude with radio signals sent from daughter to mother as they continued to rise separately. The technique was devised to provide more accurate profiles of electron density in the upper atmosphere.

-more-

-2-

Ralph D. Welsh, Wallops Project Engineer, reported, "Good telemetry signals were received and good ionosphere soundings were obtained." Telemetry data will be analyzed to determine why the sections, mother and daughter, did not separate.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: Thursday, January 28, 1965

Release No. 65-4

NASA WALLOPS TEAM LAUNCHES GRENADE EXPERIMENT

AT POINT BARROW, ALASKA

The National Aeronautics and Space Administration launched a Nike-Cajun acoustic grenade experiment yesterday at Point Barrow, Alaska, to obtain upper atmospheric meteorological data within the Arctic Circle. Liftoff time was 4:32 p.m. EST (11:32 a.m. Alaska time).

A series of 12 grenades were ejected and detonated at intervals from about 25 to 56 miles altitude as the rocket ascended. By recording the sound arrivals from the explosions on an array of five sensitive microphones on the ground, scientists can obtain wind direction and velocity, atmospheric temperature, density and pressure data.

This was the first of a series of such experiments to gather upper atmospheric data within the Arctic Circle. Point

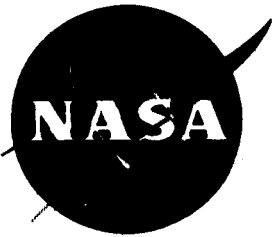
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Barrow is 1100 miles from the North Pole and 300 miles within the Arctic Circle, at 71 degrees north latitude.

The launch was conducted by a team of Wallops Station personnel headed by William L. Lord of the Program Management and Liaison Branch. Mr. Lord lives in Pocomoke City, Md. Other members of the team include: Larry C. Rossi (Chincoteague, Va.), Paul A. White (Onley, Va.), Thomas W. Cutler (Temperanceville, Va.), and two U. S. Weather Bureau personnel stationed at Wallops, George M. Foster, Jr., and Robert J. Mullin (both live in Pocomoke City, Md.).

The Point Barrow launch was coordinated with similar grenade flights from Wallops Station, Va., and Fort Churchill, Canada. Liftoff time at both sites was 5:24 p.m. EST. Ralph Welsh, native of Salisbury, Md., was the Project Engineer for Wallops Station.

Two more sets of grenade experiments will be launched at weekly intervals from the three sites, and also on a quarterly basis throughout the year, to obtain data on a near simultaneous basis from widespread geographic locations during the various seasons.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: February 2, 1965

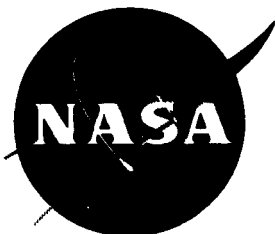
Release No. 65-5

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for alterations to third floor, Building E-108 in accordance with Specification No. P-1160.

Bids will be received until 2:00 p.m. EST, March 2, 1965. The price range for this work is below \$75,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Officer, Building F-1, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: February 2, 1965

Release No. 65-6

CONTRACT AWARDS DURING JANUARY, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To J. Ridgway & Sons, Seaford, Del., in the amount of \$2,255.00 for erection of a transmitter building tower.

-- To Ocean Electric Corp., Norfolk, Va., in the amount of \$4,394.00 for installation of cable tray in Building N-159.

-- To J. Ridgway & Sons, Seaford, Del., in the amount of \$7,791.00 for modifications and alterations to Building A-1.

-- To R. L. Harris, Norfolk, Va., in the amount of \$16,200.00 for additions to water lines.

-- To Stanley K. Baker, Salisbury, Md., in the amount of \$19,995.00 for street lighting.

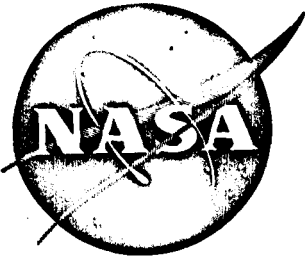
-- To Milgo Electronic Corp., Miami, Fla., in the amount of \$51,037.00 for converter, plotboards, etc.

-- To The Reeves Instrument Company, Long Island, N. Y., in the amount of \$143,500.00 for services and materials for a Digital Range Modification System for S-Band Long Range Radar.

-- To Office of Naval Research, Washington, D. C., in the amount of \$175,000.00 for logistic support for launching and tracking rockets carrying scientific experiments at Point Barrow, Alaska.

Total cost of these contracts is \$420,172.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION

WALLOPS ISLAND,

VIRGINIA

TELEPHONE:

VALLEY 4-3411

EXTS. 584 and 579

FOR RELEASE FRIDAY, February 5, 1965

Release No. 65-7

WALLOPS TO MANAGE

RICE UNIVERSITY

SATELLITE PROJECT

NASA's Wallops Island, Va., Station has been selected to manage a satellite project for Rice University of Houston, Texas.

The National Aeronautics and Space Administration has approved a proposal by scientists of Rice University for a satellite to extend studies of aurorae and airglow and to measure radiation and radiation loss in the Van Allen belts, bombardment of the upper atmosphere by energetic particles from space, and galactic and solar cosmic rays.

The 125-pound satellite, to be named Owl for the University's mascot, is expected to be placed in a near-circular orbit at about 400 miles altitude. It will be launched on a Scout vehicle from Wallops Island. The launch date has not yet been determined.

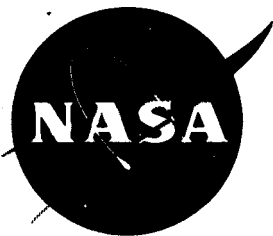
The Rice spacecraft and its experiments will be tested at NASA facilities under the direction of Wallops Station

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personnel. Although seven satellites have been launched from Wallops Island, including one for the British, this is the first time that Wallops has been named manager of a NASA satellite project.

Rice University has been engaged in space research work for about two years, and two of its sounding rocket experiments have been launched at Wallops.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, February 9, 1965

Release No. 65-8

*Have
it
already?*

GRENADE EXPERIMENTS LAUNCHED AT
POINT BARROW, ALASKA; FORT CHURCHILL,
CANADA; AND WALLOPS

The National Aeronautics and Space Administration conducted high-altitude grenade experiments almost simultaneously late yesterday from launch sites in Alaska, Canada, and at Wallops Island, Virginia.

This was the third and final set in the current series to obtain upper-atmosphere wind, temperature, density, and pressure data at the three widely-separated geographic locations. The series marked the first time that such measurements have been made with sounding rockets within the Arctic Circle.

The launch vehicle in each case was the two-stage Nike-Cajun. Grenades were ejected and detonated at intervals from about 25 to 56 miles altitude. Meteorological data are

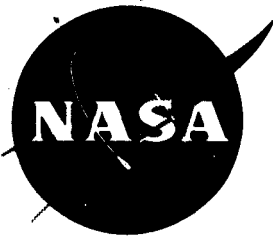
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determined by recording the time and direction of sound arrivals on an array of sensitive microphones on the ground.

Liftoff times were as follows: Point Barrow, Alaska, 5:15 p.m. EST (12:15 p.m. Alaska time); Wallops Island, 5:53 p.m. EST; and Fort Churchill, Canada, 6:00 p.m. EST.

Previous launches at the three sites occurred on January 27 and February 3-4. The Alaska launches were conducted by a team of six Wallops Station personnel who have been at Point Barrow since mid-January. Another series is scheduled to be launched at the three sites beginning in mid-April.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: February 26, 1965

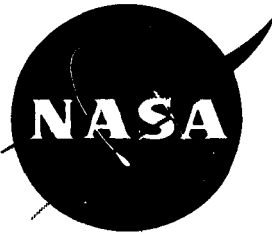
Release No. 65-9

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for Launch Area By-Pass Road in accordance with Specification No. P-1167.

Bids will be received until 2:00 p.m. EST, March 30, 1965. The price range for this work is below \$750,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Officer, Building F-1, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: March 4, 1965

Release No. 65-10

X Wallops

CONTRACT AWARDS DURING FEBRUARY, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Virginia-Carolina Electrical Works, Inc., Norfolk, Va., in the amount of \$1,994.00 for installation of coaxial cable.

-- To Harvey Mears, Chincoteague, Va., in the amount of approximately \$10,000.00 for services for maintenance of paved areas.

-- To Lance J. Eller, Inc., Keller, Va., in the amount of \$12,340.00 for access road and parking area in Area E.

-- To Bendix Field Engineering Corporation, Owings Mills, Md., in the amount of \$112,058.00 for rehabilitation of MPS-19/MSQ-1A Radar, etc.

Total cost of these contracts is \$136,392.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: March 9, 1965

Release No. 65-11

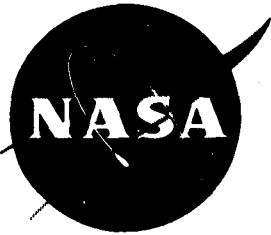
X Wallops

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for installation of firing cable at Blockhouse No. 2 in accordance with Specification No. P-1174.

Bids will be received until 2:00 p.m. EST, April 5, 1965. The price range for this work is below \$45,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Officer, Building F-1, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: March 9, 1965

Release No. 65-12

SEA-GOING EXPEDITION LAUNCHES FIRST EXPERIMENTS

The first Pacific Ocean sounding rocket experiment to be conducted from the Mobile Range Facility, the USNS Croatan, was launched by the National Aeronautics and Space Administration at 10:36 a.m. EST yesterday. The launch occurred about 360 miles due west of Quito, Ecuador, near the equator.

Purpose of the flight was to measure ionospheric currents and magnetic fields in the "equatorial electrojet." The experiment was launched for NASA's Goddard Space Flight Center, on a two-stage Nike-Apache, by a team of about thirty Wallops Station engineers and technicians headed by Robert T. Long of Bloxom, Va., and James W. Gray of Wallops Island. Germain S. Brown of Onancock, Va., is Project Manager for the Expedition. Dr. T. N. Davis is the Project Scientist for Goddard.

The "equatorial electrojet" is a system of electrical currents circulating in the ionosphere in the region of the magnetic equator. Scientists are seeking to obtain measurements

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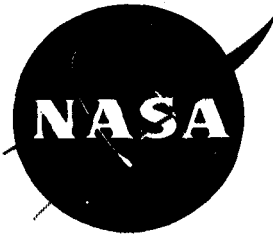
*XII Sounding
Rockets.
USNS
Croatan*

of these current systems. The electrojet is believed responsible for an intensification of the equatorial magnetic field about local noon. The current systems are estimated to reach magnitudes of several hundred thousand amperes. The currents range from about six degrees north to six degrees south of the magnetic equator. At time of yesterday's launch, the USNS Croatan was about 1 mile north of the equator at 84 degrees west longitude.

About two hours later from nearly the same position, at 12:48 p.m. EST, a second Nike-Apache was sent aloft from the deck of the ship. This rocket carried in its nose cone a Pitot-static probe to measure pressure, temperature, and density in the region of 30 to 120 kilometers. This experiment was conducted for the University of Michigan.

Experiments are scheduled for launch from the ship, at the rate of one or more each day for the next two months, as part of NASA's sounding rocket program being conducted during the International Quiet Sun Year (IQSY) 1964-65.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: March 17, 1965

Release No. 65-13

XIP ~~*Sounding*~~
2 ~~*RET*~~

SEA-GOING LAUNCH PLATFORM COMPLETES ONE LEG OF JOURNEY

The National Aeronautics and Space Administration's floating launch platform, the USNS Croatan, has completed the Balboa-to-Lima leg of its sea-going expedition across the equator off the west coast of South America.

The "sounding rocket ship" departed Balboa, Panama Canal Zone, March 6 and arrived at Lima, Peru, March 13. During the interval ten two-stage sounding rockets were launched from the deck of the ship, carrying upper atmosphere and ionosphere experiments for the University of Michigan, the University of New Hampshire, and NASA's Goddard Space Flight Center. Also three single-stage Arcas meteorological rockets, two of which carried experiments to measure ozone in the atmosphere, were sent aloft.

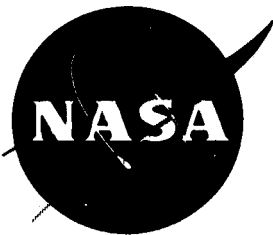
-more-

The NASA Wallops Station launch and tracking crew on board reported that all rocket vehicles, payloads, and "ground" support equipment have performed satisfactorily on all launches to date, and that all experiments scheduled for this part of the expedition were conducted. Launches occurred from 5 degrees north to about 11 degrees south of the equator.

Additional experimenters and equipment were taken on board at Lima for the next leg of the journey, which began March 15 and will take the mobile range facility across the magnetic equator for another series of space research firings. The ship will return to Lima in about 9 days, to let off some experimenters and take others aboard for the next part of the trip.

The USNS Croatan, a converted aircraft transport ship, is operated by the Military Sea Transportation Service (MSTS) on contract to NASA for a 3-month mobile launch expedition. The ship's crew consists of about 75 civil service personnel. The launch and tracking team is made up of about 30 engineers and technicians from NASA's Wallops Station, Wallops Island, Va. Several teams of experimenters are on board, with the number of scientists varying from 18 to 32.

The expedition is part of NASA's sounding rocket program being conducted during the International Quiet Sun Year (IQSY) 1964-65.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: March 18, 1965

Release No. 65-14

Wallops Launches Experiment

FOR DALLAS RESEARCH CENTER

An experiment to measure characteristics of the upper atmosphere was launched by the National Aeronautics and Space Administration, Wallops Island, Va., at 3:43 p.m. EST today.

The experiment was conducted for the Graduate Research Center of the Southwest, Dallas, Texas, and was the first venture of that organization into space.

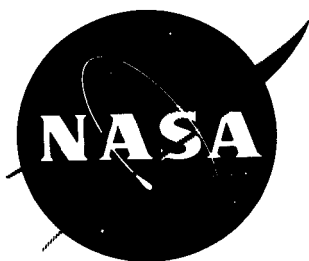
Purpose of the flight was to measure the ion composition and neutral composition of the upper atmosphere as functions of altitude. The 63-pound payload was flown on a Nike-Apache vehicle and reached a peak altitude of 98 statute miles.

Impact occurred 89 miles downrange in the Atlantic Ocean. No recovery was attempted.

Project Scientist for the Graduate Research Center is Thomas W. Flowerday and Harvey Needleman is the Project Engineer for Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION
TELEPHONE:

WALLOPS ISLAND,
VALLEY 4-3411

VIRGINIA
EXTS. 584 and 579

FOR RELEASE March 18, 1965

Release No. 65-15

X Wallops

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for Sewage Treatment and Distribution System in accordance with Specification No. P-1175.

Bids will be received until 2:00 p.m. EST, April 20, 1965. The price range for this work is below \$400,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Officer, Building F-1, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: Tuesday, March 23, 1965

Release No. 65-17

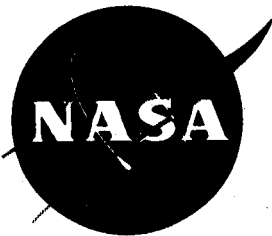
X Wallops

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for Advance Data Acquisition Support Facility in accordance with Specification No. P-1186.

Bids will be received until 2:00 p.m. EST, April 23, 1965. The price range for this work is below \$130,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Officer, Building F-1, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: Thursday a.m., April 1, 1965

Release No. 65-18

NASA SEA-GOING PLATFORM FIRES

TOTAL OF 46 SOUNDING ROCKETS

A total of 46 rocket launchings have been made at sea by the National Aeronautics and Space Administration's mobile launch expedition operating off the west coast of South America.

Thirty-two of the firings were two-stage sounding rockets carrying upper atmosphere and ionosphere experiments and 14 were single-stage vehicles to obtain high altitude meteorological data.

The rockets were fired from the deck of a converted escort carrier being operated under contract for NASA.

The project is part of the NASA sounding rocket program being conducted during the 1964-65 International Quiet Sun Year (IQSY) when solar flare and sunspot activity is at a minimum. Expedition data will be correlated with the findings of scientists throughout the world who are conducting experiments to study IQSY phenomena.

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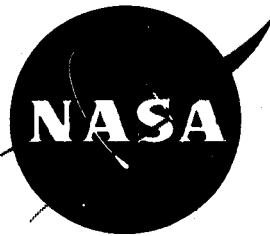
In addition to experimenters representing NASA, other federal agencies and several U. S. universities, scientists from Peru, Chile, Brazil and Argentina are participating as observers at various times during the three-month expedition.

South American government officials, scientists, university professors and news representatives yesterday toured the ship at Callao, the port city for Lima, Peru, and were briefed on the scientific objectives of the expedition. On hand to assist with the public event were Robert L. Krieger, Director, and Joseph E. Robbins, Administrative Officer of NASA's Wallops Station, Wallops Island, Va. Wallops Station has project management for the three-month mobile launch expedition. The Wallops launch and tracking crew on board is headed by Germain S. Brown, Assistant Chief of the Range Engineering Division.

Previous visits were made to Lima March 15 and March 23, primarily to let off and take on different teams of experimenters and equipment. The expedition is scheduled to leave Lima today and will head northwest to a position 10 degrees south of the equator for the next launch. It will then sail south, conducting rocket launches as far as 60 degrees south of the equator.

The sea-going launch platform is the U. S. Naval Ship Croatan, normally used as a cargo ship in worldwide operations by the Navy's Military Sea Transportation Service. It is manned by an all civilian crew.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: Thursday a.m., April 1, 1965

Release No. 65-19

WALLOPS LAUNCHES AIRGLOW EXPERIMENT

Utilizing a two-stage Nike-Apache vehicle, the National Aeronautics and Space Administration's Wallops Station launched a scientific payload at 9:07 EST last night for NASA's Lewis Research Center of Cleveland, Ohio.

According to Andrew E. Potter, Lewis Project Scientist, the experiment was designed to study the airglow--a glowing layer of the atmosphere seen very clearly edge-on by astronauts but virtually invisible from the ground. Studies of the atmosphere for airglow were made from an altitude of about 30 to 90 statute miles. A thorough understanding of this atmospheric layer may help to understand radio propagation because signals are frequently bounced off the ionosphere at this level.

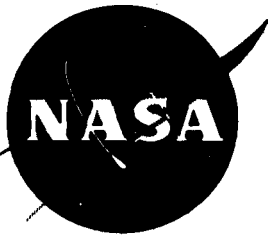
The experiment was designed to study three wavelengths of light--one in the red part of the spectrum, another in the yellow and a third in the green. The altitude of the airglow was measured with phototubes mounted on the rocket. A 26-inch

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diameter mylar balloon was aboard to help the scientists correlate their measured light intensity and altitude with the density of the atmosphere. The balloon coated with aluminum was released at the peak of the rocket's trajectory and radar tracks of its descent are used to calculate the air density.

Wallops' Project Engineer responsible for coordinating pre-launch, launch and tracking operations was Harvey C. Needleman.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: April 1, 1965

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Release No. 65-20

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for alterations and modifications to interiors of Buildings F-8 and F-160 in accordance with Specification No. P-1199.

Bids will be received until 2:00 p.m. EST, April 22, 1965. The price range for this work is below \$25,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building F-1, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 384 and 579

FOR RELEASE: April 14, 1965

Release No. 65-21

WALLOPS ROCKET LAUNCHING

TIMED WITH OGO-I PASS

The National Aeronautics and Space Administration today timed the firing of a 1300-mile high sounding rocket to correspond closely with the passage of the OGO-I satellite in an unsuccessful attempt to compare and correlate radiation belt electron and proton measurements.

A four-stage Journeyman (ARGO D-8) rocket with a 130-pound University of Minnesota instrumented payload was fired from NASA's Wallops Station, Wallops Island, Va., at 9:39 a.m. EST. The experiment package impacted in the Atlantic Ocean about 1200 miles downrange.

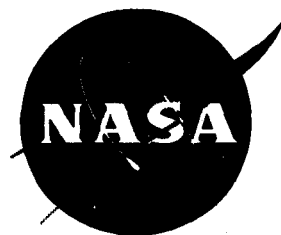
Telemetry indicated proper functioning of the instrumentation during the 26-minute flight, but no useful data was returned because the nose cone covering the payload failed to eject.

-more-

Therefore, the experiment package was not exposed to energetic particles in the radiation belt. Records of the flight are being studied to determine the cause of the failure.

Both the Orbiting Geophysical Observatory and the rocket payload were equipped with University of Minnesota experiments consisting of electron spectrometers and proton detectors to continue studies of how the earth's radiation belts receive, trap and lose energetic particles.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: April 22, 1965

X

Release No. 65-22

NASA SEA-GOING PLATFORM

COMPLETES LAUNCH EXPEDITION

The National Aeronautics and Space Administration this week, completed a successful expedition of launching scientific experiments off the west coast of South America when the sea-going launch platform, U. S. Naval Ship Croatan, arrived at Valparaiso, Chile.

A total of 77 sounding rockets were sent aloft from the deck of the converted escort carrier operated under contract for NASA. Forty-five of the payloads were flown on vehicles of the Nike-Cajun and Nike-Apache class, and thirty-two were single-stage meteorological rockets. Firings occurred at various positions from 5 degrees north to 60 degrees south of the equator. Five experiments were conducted at or near the 60th parallel at about 78 degrees west longitude.

The project is part of the NASA sounding rocket program being conducted during the 1964-65 International Quiet Sun

-more-

Year (IQSY) when solar flare and sunspot activity is at a minimum. A number of the experiments were conducted in the region of the magnetic equator to investigate phenomena in the "equatorial electrojet," a system of electrical currents circulating in the ionosphere in that area. Expedition data will be correlated with the findings of scientists throughout the world who are conducting experiments to study IQSY phenomena.

Experiments were conducted from the ship for eleven teams of researchers, representing universities, NASA field centers, and other federal agencies. The experimenters included scientists from the universities of Michigan, Illinois, and New Hampshire; Illinois Institute of Technology; Goddard Space Flight Center and Langley Research Center of the NASA; Cambridge Research Laboratory of the Air Force; Sandia Corp.; Naval Ordnance Test Station, China Lake, California; U. S. Weather Bureau; National Bureau of Standards. Scientists from Peru, Chile, and Brazil participated as observers at various times during the expedition.

The ship was opened at Valparaíso for visits by South American government officials, scientists, university professors

and news representatives. The visitors were given a tour of the mobile range facility and briefings on the scientific objectives of the expedition similar to the event which occurred at Callao (Lima), Peru, March 31st when the ship was in port there.

The project is under the overall direction of NASA's Office of Space Science and Applications. NASA Wallops Station has project management for the mobile launch expedition. Project Manager is Germain S. Brown, Assistant Chief of the Range Engineering Division. The Wallops launch team of about 30 engineers and technicians is headed by Robert T. Long as director of launch operations and James W. Gray as engineer in charge of instrumentation. Most of the Wallops personnel and the scientists who participated on the last leg of the journey debarked at Valparaiso to fly home.

The USNS Croatan, her three-month mission for NASA completed, will return to the U. S. for removal of the scientific equipment and then resume her normal world-wide cargo operations for the U. S. Navy's Military Sea Transportation Service. The ship is manned by an all civilian crew. The master of the Croatan is Captain Gunnar Johnson of New Orleans, Louisiana.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: Monday, April 26, 1965

Release No. 65-23

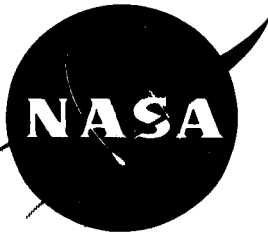
The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for alterations and additions to Photographic Laboratory, Building E-2, in accordance with Specification No P-1210.

Bids will be received until 2:00 p.m. EDT, May 21, 1965.

The price range for this work is below \$175,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: April 29, 1965

Release No. 65-24

BEACON EXPLORER SATELLITE

LAUNCHED BY SCOUT AT WALLOPS

The Beacon Explorer-C satellite was launched by the National Aeronautics and Space Administration today on a four-stage solid-propellant Scout vehicle at Wallops Island, Va. Liftoff occurred at 10:17 a.m. EDT.

The windmill-shaped satellite weighs 132 pounds and is expected to have a useful lifetime of about one year.

Using the "train whistle effect" of an orbiting radio signal to map irregularities in the earth's gravitational field, the Beacon Explorer-C is the first NASA satellite with geodesy as its primary mission. Geodesy is the measurement of the earth's size, shape, mass, and variations in gravity.

The "train whistle" effect refers to what scientists call the Doppler shift, the shift in frequency of a sound (or radio) wave received from a moving source.

-more-

As a train approaches a person standing near the track, he hears the whistle shifting to a higher frequency (higher pitch) than that actually emitted and to lower frequencies as the train passes and goes away.

If the earth were a perfect sphere, a satellite would travel along a smooth curve called an ellipse. However, irregularities in the earth's shape cause the orbit to be different and therefore cause the Doppler shift of radio signals from the spacecraft to be different from what would be expected for an elliptic orbit. It is by analysis of these slight changes that the shape of the earth is figured out of the research program which uses the Doppler data.

A secondary mission objective will support the most extensive international cooperative space effort ever undertaken, involving 86 ground stations in 36 countries. This is a global survey of the electron content of cross-sections of the ionosphere, and measurements of electron densities and temperatures in the immediate vicinity of the spacecraft.

The new Explorer also is equipped to evaluate further the use of laser (light amplification by stimulated emission of

radiation) techniques in deriving orbital and geodetic information and for deep space communication.

Removal of a 125-pound secondary experiment, due to mechanical difficulties permitted revision of the planned orbit to one more favorable for geodetic studies. The removed experiment was on the second stage of the Scout rocket and was to determine the effects of liquid injection on radio frequency blackouts. The revised nominal orbit for Beacon Explorer-C was 770 miles (versus 670 miles) apogee and 710 miles (versus 620 miles) perigee.

As with the global survey of electron counts, the laser experimentation was pioneered by the first Beacon Explorer to achieve orbit, Explorer XXII, launched October 9, 1964, at Vandenberg AFB, Calif. Both projects are continuing with that successful spacecraft.

The BE-C project is part of the scientific and space exploration efforts of NASA's Office of Space Science and Applications. Project management of the satellite is assigned to the Goddard Space Flight Center, Greenbelt, Md.

Working with Goddard are the University of Illinois, Pennsylvania State University, Stanford University, the Central

Radio Propagation Laboratory of the National Bureau of Standards, an agency of the U. S. Department of Commerce, and the Johns Hopkins University's Applied Physics Laboratory (APL) which designed and built the satellite.

The electron density probe experiment was built at Goddard. The laser experiment is directed by NASA's Office of Advanced Research and Technology, under Goddard project supervision. The laser propagation devices were built at Goddard.

The director of launch operations for Wallops Station was Robert T. Duffy. The Wallops Project Engineer was Lewis A. Teletski, responsible for coordinating pre-launch, launch and tracking operations.

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After launch the satellite was named Explorer XXVII. The orbital elements are as follows:

Apogee	-	819 statute miles
Perigee	-	584 statute miles
Inclination to equator	-	41 degrees
Orbital period	-	108 minutes

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: Monday, May 3, 1965

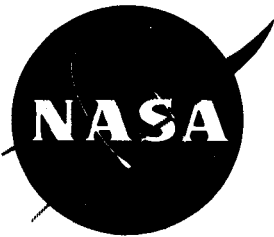
Release No. 65-25

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for repairs to Beach Protection System in accordance with Specification No. P-1225.

Bids will be received until 2:00 p.m. EDT, May 26, 1965. The price range for this work is below \$65,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: Wednesday a.m., May 5, 1965

Release No. 65-26

STAR TRACKING EXPERIMENT

LAUNCHED AT WALLOPS

A stellar spectroscopy experiment was launched by the National Aeronautics and Space Administration on an Aerobee sounding rocket at Wallops Island, Va., at 11:23 EDT last night.

Purpose of the experiment was to measure spectral radiation of two stars, Spica and Alkaid, utilizing an ultraviolet stellar spectrometer and an input telescope with a 13-inch aperture.

Another objective of the flight was to test the performance of a gimbaled star tracker and a modified attitude control system called STRAP (stellar tracking rocket attitude positioning control system).

The Aerobee lofted the 317-pound payload to an altitude of 90 statute miles. Data were telemetered to ground stations during the flight. Impact occurred about 54 miles downrange in the Atlantic Ocean.

The launch was conducted for NASA's Goddard Space Flight Center, Greenbelt, Md. David U. Wright was the Goddard project scientist, George E. Kraft was the Goddard vehicle manager.

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-2-

and Roger L. Navarro was the project engineer for Wallops Station, responsible for coordinating pre-launch, launch, and tracking operations.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: Wednesday, May 5, 1965

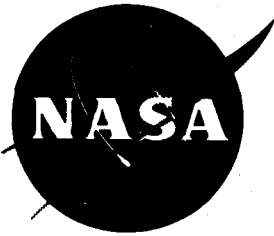
Release No. 65-27

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for Meteorological Instrumentation Control Buildings in accordance with Specification No. P-1227.

Bids will be received until 2:00 p.m. EDT, June 1, 1965. The price range for this work is below \$45,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY A.M., MAY 6, 1965

Release No. 65-28

NASA ANNOUNCES

JOINT U.S./BRAZILIAN

SOUNDING ROCKET PROGRAM

The National Aeronautics and Space Administration and the Brazilian Space Commission have agreed to cooperate in a scientific sounding rocket program it was announced today.

The project, part of NASA's continuing program of cooperative space research, will contribute to observance of 1965 as International Cooperation Year.

Under the agreement, NASA will provide and the Brazilian Space Commission (CNAE) will launch two sounding rockets from Natal, Brazil. CNAE will provide the launching range. The scientific payloads will be constructed by Brazilian technicians at NASA's Goddard Space Flight Center, Greenbelt, Md.

CNAE and NASA will combine to provide the ground support equipment required for the launchings. In addition, NASA will launch one instrumented sounding rocket from Wallops Island, Va., in a complementary experiment.

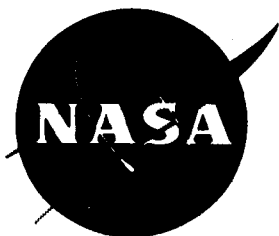
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Brazilian engineers and technicians are receiving training related to the experiments at the Goddard and Wallops Island Facilities. Four members of the Brazilian team are presently in training at Wallops.

The agreement provides for analysis of data and publication of results by both Brazilian and U. S. experimenters. The results will be made available to the world scientific community.

The purpose of the joint Brazilian-American program is to investigate the lower regions of the ionosphere with emphasis on the effects of cosmic rays in this region. This will be done by comparing the electron and ion densities, solar radiation in the Lyman-Alpha range and other data that are gathered in Natal and Wallops Island.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, MAY 11, 1965

Release No. 65-29

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for alterations to Building N-162 in accordance with Specification No. P-1226.

Bids will be received until 2:00 p.m. EDT, June 11, 1965. The price range for this work is below \$40,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: WEDNESDAY, MAY 19, 1965

Release No. 65-30

MOTHER-DAUGHTER EXPERIMENT

FLIES AT WALLOPS ISLAND

A single sounding rocket today successfully sent aloft a "mother-daughter" experiment to transmit radio signals between two instrument packages that parted in flight and climbed separately through the ionosphere.

The experiment, employing a technique developed by scientists of Pennsylvania State University, was launched at 4:11 p.m. EDT by a four-stage Javelin (ARGO D-4) from the National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va.

The project, designed to measure electron densities and ion composition of the upper ionosphere, is one of NASA's Office of Space Science and Applications in cooperation with Penn State University.

-more-

Telemetry indicated the 104-pound payload separated as planned at about 170 miles altitude and the two sections--mother and daughter--reached a peak altitude of about 605 statute miles. The sections were programmed to rise separately for about 8 minutes and reach a distance apart of about 3 miles.

Experimental information was radioed to ground stations and no recovery of the sections was required. They impacted in the Atlantic Ocean.

The daughter section consisted of three transmitters radiating signals at 6, 12, and 72 megacycles per second. The mother section had three receivers for the daughter transmissions and two devices for comparing the phases of the 6 and 12 Mc signals with the 72 Mc reference signal.

Continuous measurement of the phase differences of the propagated signals between mother and daughter will enable scientists to map electron densities along the trajectory. Ion composition of the upper ionosphere was measured by an ion trap and electron temperature probe contained in the mother section.

The mother-daughter technique was devised to provide more accurate profiles of upper ionosphere electron density. Earlier methods, relying on rates of change in density between moving

spacecraft and ground stations, have been subject to discrepancies caused by shifting horizontal and vertical positions of the transmitting spacecraft and by disturbances and fluctuations in lower portions of the ionosphere through which the signals traveled.

Today's flight was timed to occur while the Canadian satellite, Alouette, was passing nearby. Alouette's instruments will provide scientists with a horizontal profile of ionospheric electron and ion densities and temperatures to be correlated with the findings of the mother-daughter experiment. The findings also will be correlated with those of ground-based experimenters using special electronic equipment.

In an earlier flight, January 13, 1965, the mother-daughter sections failed to separate.

Technical director of the project is Professor J. S. Nisbet of Penn State University. Professor L. C. Hale and Dr. T. P. Quinn, also of Penn State, are project scientists. Professor Nisbet and Dr. Quinn devised the experiment. The ion trap is an experiment of Professor Hale.

John R. Holtz is Program Manager for OSSA; John G. Guidotti is the Vehicle Manager for the Goddard Space Flight Center, Greenbelt, Md.; and Roger L. Navarro is the Project Engineer for Wallops Station.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: WEDNESDAY, May 26, 1965

Release No. 65-31

WALLOPS LAUNCHES

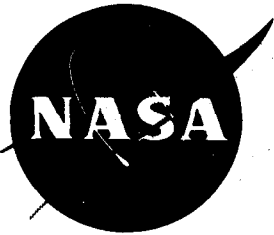
IONOSPHERE EXPERIMENT

X
An ionosphere experiment was launched today by the National Aeronautics and Space Administration from Wallops Island, Va.

The launch vehicle was a four-stage Javelin (ARGO D-4) sounding rocket. Liftoff occurred at 3:02 p.m. EDT.

Primary objectives of the flight were to measure ion and electron densities and temperatures and the ionic composition in the upper ionosphere. Due to a malfunction in the launch vehicle, the 140-pound payload was lofted to an altitude of only 200 statute miles instead of the planned 520 statute miles. Telemetry data were received for about nine minutes. Project officials termed the flight a partial success despite the failure to achieve the peak altitude. The cause of the malfunction is being investigated.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FRIDAY, MAY 28, 1965

Release No. 65-32

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for vent doors for Aerobee 350 Tower in accordance with Specification No. P-1251.

Bids will be received until 2:00 p.m. EDT, June 23, 1965. The price range for this work is below \$45,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, JUNE 3, 1965

Release No. 65-33

CONTRACT AWARDS DURING APRIL AND MAY, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Paul W. Bowden, Chincoteague, Va., in the amount of approximately \$9,000.00 for services and materials for garbage and trash removal and for operation of a sanitary fill disposal site.

-- To S. M. Rogers, Onancock, Va., in the amount of \$16,412.00 for engineering services for topographic survey of Wallops Island.

-- To Collins Radio Company, Dallas, Texas, in the amount of \$32,025.00 for HF variable range antenna.

-- To Alban Tractor Company, Baltimore, Md., in the amount of \$45,378.00 for diesel electric set.

-- To Southern Electronics Corporation, Norfolk, Va., in the amount of \$96,630.00 for advance data acquisition support facility.

-- To Data-Control Systems, Inc., Danbury, Conn., in the amount of \$97,205.00 for subcarrier discriminators and associated equipment.

-- To Ampex Corporation, Redwood City, Calif., in the amount of \$139,238.00 for services and materials necessary to furnish magnetic tape recorder/reproducer system.

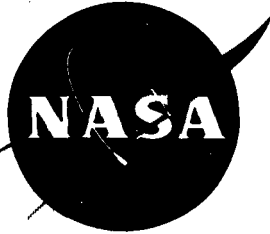
-- To Joseph S. Floyd Corporation, Norfolk, Va., in the amount of \$232,180.00 for construction of a sewage treatment and distribution system.

-- To Westinghouse Electric Corporation, Surface Division, Baltimore, Md., in the amount of \$299,805.00 for pulse doppler modification system.

-- To Higgerson-Buchanan, Inc., Chesapeake, Va., in the amount of \$596,433.00 for launch area by-pass road.

Total cost of these contracts is \$1,564,306.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: JUNE 8, 1965

RELEASE No. 65-~~32~~ 34

X

WALLOPS HIRING 20

SUMMER EMPLOYEES IN

YOUTH OPPORTUNITY CAMPAIGN

Wallops Station is hiring 20 summer employees, ages 16 through 21, as part of the Youth Opportunity Campaign announced by the President May 23.

In launching the Youth Opportunity Campaign, President Johnson called upon all Government agencies--Federal, State and local--and all private employers throughout the nation to cooperate in providing summer employment opportunities for the two million young Americans leaving school this month. This is the year that a large number of the "post-war baby crop" of the late 1940's is entering the labor force. It is estimated that half the unemployment in the U. S. this month is in the 16 through 21 year old group. The Youth Opportunity Campaign is an attempt to improve this situation.

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Of the 330 special positions to be filled by the National Aeronautics and Space Administration, 20 have been allotted to Wallops Station. These positions are over and above the normal summer employment and college intern programs in which NASA has participated during the past several years.

Selections have already been made, mostly from local high school graduates, to fill the 20 positions at Wallops.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MONDAY, JUNE 14, 1965

Release No. 65-35

IQSY IONOSPHERE EXPERIMENT

LAUNCHED AT WALLOPS *X* *✓*

An experiment to study the D and E regions of the ionosphere was conducted early today by the National Aeronautics and Space Administration at Wallops Island, Va.

Liftoff occurred at 5:14 a.m. EDT. The experiment was launched in conjunction with a special radio transmission from Station WTOP in Washington, D. C., to measure effects of the WTOP-generated audio tone signal on telemetry transmissions during the flight.

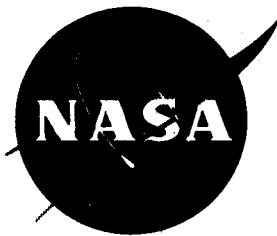
The 55-pound payload was lofted to a peak altitude of 110 statute miles by a two-stage Nike-Apache sounding rocket. During the flight, electron density in the ionosphere was measured by three different methods and the data were telemetered to ground receiving stations.

-more-

The experiment was conducted for the University of Illinois and NASA's Goddard Space Flight Center, Greenbelt, Md., as part of the United States' participation in studies being made by scientists around the world during the 1964-65 International Quiet Sun Year (IQSY), when solar flare and sunspot activity is at a minimum.

Technical Director for the University of Illinois was Dr. S. A. Bowhill. Project Scientist for the experiment was Dr. L. G. Smith of the GCA Corporation. C. M. Hendricks was the Goddard Vehicle Manager and Ralph D. Welsh was the Project Engineer for Wallops Station.

Weather permitting, a companion experiment will be launched here Wednesday afternoon of this week. No radio station tone signal will be involved.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE:

JUNE 18, 1965

Release No. 65-36

IONOSPHERE PROBE LAUNCHED

IX AT WALLOPS

*Sounding
Rockets*

An ionospheric sounding probe was launched by the National Aeronautics and Space Administration on a Nike-Apache vehicle at 1:56 p.m. EDT today from Wallops Island, Va.

Purpose of the experiment was to measure electron density in the E region of the ionosphere, employing a technique which has only been used in the Topside Sounder Program.

The 45-pound payload was lofted to a peak altitude of 116 statute miles. Electron profile data were obtained during both the ascent and descent portions of the flight trajectory, and data were telemetered to ground receiving stations during the flight.

The experiment was conducted for the Central Radio Propagation Laboratory of the National Bureau of Standards and NASA's Goddard Space Flight Center, Greenbelt, Md. Dr. J. Hugill was Project Scientist for the Central Radio Propagation Laboratory. C. M. Hendricks was the Goddard Vehicle Manager and Harvey C. Needleman was the Wallops Station Project Engineer.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FRIDAY, JUNE 18, 1965

Release No. 65-37

WALLOPS LAUNCHES NEW ROCKET

XII
Launching Rocket

The National Aeronautics and Space Administration today launched a new and powerful two-stage research rocket, the Aerobee 350, which features a main stage propelled by a cluster of four liquid-fueled engines. The launching conducted from the NASA Wallops Station in Virginia at 7:11 p.m. EDT was the first flight test of the vehicle to check out its performance characteristics and demonstrate its capabilities for scientific research.

The rocket is 52-feet long, 22 inches in diameter, and weighs over 3.5 tons. The four clustered Aerobee liquid engines each develop a sea-level thrust of 4100 pounds and burn for about 52 seconds. The booster stage uses a solid propellant Nike motor which has a thrust level of 52,000 pounds. Sustainer and booster stages fire simultaneously, with the Nike burning out and separating about 3.2 seconds later.

-more-

Much more powerful than the Aerobee 150, the 350 was developed to provide a "soft ride" for heavy scientific payloads to high altitudes. It is designed to boost a minimum-weight payload of 150 pounds to an altitude of 290 statute miles and a maximum payload of 500 pounds to 210 miles. The smaller Aerobee 150 carries a payload of 150 pounds to about 150 miles.

In today's flight, the Aerobee 350 carried 367 pounds of performance instrumentation to a peak altitude of about 235 statute miles and impacted in the Atlantic Ocean about 160 miles from the launch site.

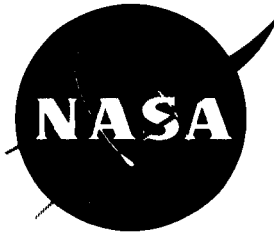
The Aerobee Project Manager John H. Lane, of the Goddard Space Flight Center, reported that over 10 minutes of telemetry data were received from the flight and that test results appeared to be excellent based on preliminary examination.

The Aerobee 150A launch tower was extensively modified by Wallops to also accommodate the 350. An important first step in the 350 flight program was accomplished last December when a Nike booster successfully blasted an inert Aerobee 350 sustainer stage out of the tower to prove the compatibility of the vehicle and launch facility.

The Aerobee 350 was designed and developed by the Space-General Corporation of El Monte, California, under contract to the Goddard Space Flight Center, which conducts the NASA sounding rocket program. John Lane and Frank M. Collins, the Assistant 350 Project Manager, are members of the Sounding Rocket Branch Flight Performance Section which is headed by Mr. Ernest F. Sorgnit.

Today's launch was carried out under the direction of William A. Brence, Wallops Island Project Engineer. Launch Supervisor was Harry F. Bloxom. Overall direction of the sounding rocket program is under NASA's Office of Space Science and Applications, Washington, D. C.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, JUNE 22, 1965
9:30 p.m. EDT

Release No. 65-38

X

WALLOPS LAUNCHES

VAPOR EXPERIMENTS

As part of its upper atmosphere meteorological research program, the National Aeronautics and Space Administration launched two sodium vapor trail experiments from Wallops Island, Va., at 8:59 and 9:03 EDT tonight.

The two Nike-Apache sounding rockets ejected vapor trails along the flight trajectory through a region approximately 40 to 124 statute miles above the earth. The huge pink and reddish clouds formed by wind dispersion of the vapor were visible for several hundred miles along the east coast.

One rocket was fired on an azimuth of 90 degrees (due east) and the other was fired on a 130-degree azimuth (southeast). The dual launching placed sodium trails in the same altitude region at about the same time, and several miles apart to provide

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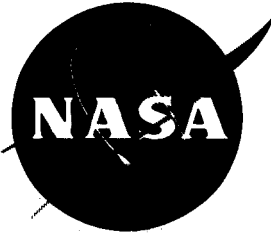
data on wind behavior variations over a lateral distance as well as at various altitudes.

The dispersion of the trails are recorded by ground based cameras at several sites within a 100 mile radius of Wallops Island, to obtain measurement of wind directions and velocities at various altitudes.

Weather permitting, three additional experiments will be conducted in the series, one about midnight tonight and two at dawn tomorrow. Two of these will utilize trimethylaluminum vapor -- which luminesces in oxygen and appears bluish-green -- and the other will employ the sodium vapor trail.

The experiments are being conducted for the GCA Corporation, Bedford, Mass., under contract to NASA. The Project Scientist is John F. Bedinger of the GCA Corporation. Harvey C. Needleman is the Project Engineer for Wallops Station.

-END-



Wallops (June 65)

NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: WEDNESDAY, JUNE 23, 1965

Release No. 65-39

FIVE VAPOR TRAIL EXPERIMENTS

LAUNCHED AT WALLOPS X

A series of five vapor trail experiments were launched by the National Aeronautics and Space Administration from Wallops Island, Va., in an eight-hour period between dusk last night and dawn today. The experiments, using both sodium vapor and trimethylaluminum vapor trails, are part of the NASA's upper atmosphere meteorological research program.

Two-stage Nike-Apache sounding rockets ejected vapor along the flight trajectory through a region approximately 40 to 124 statute miles above the earth. The huge clouds formed by wind dispersion of the vapor were visible for several hundred miles along the east coast.

Sodium vapor clouds take on a glowing pink-red hue. Trimethylaluminum vapor luminesces in oxygen, and appears bluish-green. The dispersion of the trails are recorded by

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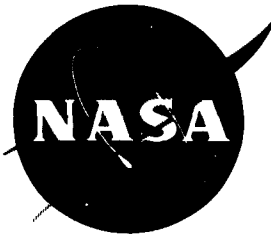
ground-based cameras at several sites within a 100-mile radius of Wallops Island, to obtain measurement of wind directions and velocities at various altitudes.

Twin launchings occurred at 8:59 and 9:03 EDT last night. One rocket was fired on an azimuth of 90 degrees (due east) and the other was fired on a 130-degree azimuth (southeast). The dual launching placed sodium trails in the same altitude region at about the same time, and several miles apart to provide data on wind behavior variations over a lateral distance as well as at various altitudes.

The third launching was conducted at 12:00 midnight EDT, utilizing trimethylaluminum vapor. The payload also contained instrumentation to compare electron densities with wind dispersion and to measure electron temperatures.

Dual launchings again occurred at 4:47 a.m. and 4:52 a.m. EDT today, the former utilizing the sodium vapor trail and the latter employing the trimethylaluminum payload.

The experiments were conducted for the GCA Corporation, Bedford, Mass., under contract to the NASA. John F. Bedinger was Project Scientist for GCA. Harvey C. Needleman was the Project Engineer for Wallops Station.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: WEDNESDAY, JUNE 30, 1965

Release No. 65-40

XII Sunday Rocket

JOURNEYMAN CARRIES

RADIO ASTRONOMY EXPERIMENT

AT WALLOPS

A powerful sounding rocket was launched today from Virginia's Atlantic Shoreline to carry a 70-foot antenna on a 25-minute cruise extending more than 1,000 miles into space.

Primarily a radio astronomy experiment, the 137-pound instrumented payload was launched at 1:34 A.M. EDT by the National Aeronautics and Space Administration from Wallops Island, Va. The launch vehicle was a four-stage Journeyman (ARGO D-8), more than 60 feet long.

Main objective of the mission was to measure the intensity of radio frequency (RF) energy originating mostly from outside the solar system at three frequencies-- 750, 1225, and 2000 kilocycles.

Secondary objectives were to investigate previously detected radio noise in the top-side of the ionosphere, to measure electron density in the top-side ionosphere (as an aid in

-more-

planning future space radio astronomy experiments), and to investigate certain characteristics of antennas in the ionospheric region.

Project scientist was Dr. W. J. Lindsay of the University of Michigan. The project was conducted by NASA in cooperation with the University. The launching, associated preparations and the collection of telemetered in-flight engineering and scientific data were the responsibility of Wallops Station, with Ralph D. Welsh serving as Project Engineer.

Two drive motors were to fully erect in flight two 35-foot unfurlable antennas, providing a single, half-inch diameter dipole antenna, 70 feet from tip to tip. Other programmed events called for the nose cone to be ejected three minutes after liftoff and for the spin-stabilized rocket to be despun to about 32.4 revolutions per minute.

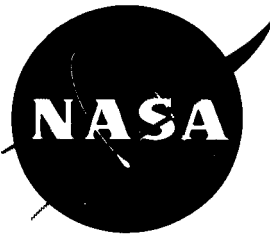
This was to minimize bending moments on the long antennas as they also deployed, over a 110-second period, to further despin the attached fourth stage and payload to 3.3 revolutions per minute.

A quick look at preliminary data indicated these and other experiment events occurred approximately as planned. Three radiometers, operated in sequence with the antenna to measure the RF energy intensities, also permitted observation of the

previously detected radio noise. Electron densities along the flight path were measured with a Langmuir Probe supplied by the University's Space Physics Laboratory.

Because of the high altitude and long trajectory, with downrange impact about 1,700 miles from Wallops, the Bermuda Island Station supported the project in receiving telemetry from the payload.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, JULY 6, 1965

Release No. 65-41

CONTRACT AWARDS DURING JUNE, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

- To E. R. Stephens, Chincoteague, Va., in the amount of \$2,480.00 for Ballistic Camera Facility.
- To Charles F. Matthews, Oak Hall, Va., in the amount of \$13,000.00 for Fixed Camera Network improvements.
- To Clark, Buhr and Nexsen, Norfolk, Va., in the amount of \$13,800.00 for architect-engineer services for alterations to Building E-3.
- To Charles F. Matthews, Oak Hall, Va., in the amount of \$17,949.00 for construction of a flagpole array.
- To Southern Electronics Corporation, Norfolk, Va., in the amount of \$19,000.00 for alterations to Building N-162.
- To Reeves Instrument Company, Garden City, L. I., N. Y., in the amount of \$20,000.00 to provide one field engineer to modify, operate and maintain the MPS-19 radar and OA-626 equipment.
- To Joseph S. Floyd Corporation, Norfolk, Va., in the amount of \$20,580.00 for modifications to Building D-15.
- To Everett Corporation, Chincoteague, Va., in the amount of \$25,875.00 for meteorological instrumentation control buildings.

-more-

-- To Petroleum Helicopters, Inc., Lafayette, La., in the amount of \$40,000.00 for services and materials to provide helicopter recovery services.

-- To Everett Corporation, Chincoteague, Va., in the amount of \$42,350.00 for conference dining room, Building E-2.

-- To Olav Fagerheim & Son, Inc., Pleasantville, N. J., in the amount of \$42,700.00 for repairs to Beach Protection System.

-- To Department of Health, Education & Welfare, Public Health Service, Washington, D.C., in the amount of \$52,500.00 for services and materials to provide a health service program for the employees of Wallops Station during Fiscal Year 1966.

-- To Harvey Mears, Chincoteague, Va., in the amount of \$57,600.00 for services and materials to maintain and operate a transportation service at Wallops Station for Fiscal Year 1966.

-- To National Bureau of Standards, Boulder, Colorado, in the amount of \$60,000.00 for services and materials for operation of an Ionosphere Sounding Station during Fiscal Year 1966.

-- To Everett Corporation, Chincoteague, Va., in the amount of \$104,000.00 for alterations and additions to Photographic Laboratory, Building E-2.

-- To Atlantic Maintenance Company, Pleasantville, N. J., in the amount of \$118,000.00 for services and materials to provide janitorial services.

-- To Chief, U. S. Weather Bureau, Washington, D. C., in the amount of \$470,000.00 for services and materials to provide meteorological services for Wallops Station during Fiscal Year 1966.

-3-

-- To Commander, Military Sea Transportation Service, Washington, D. C., in the amount of \$500,000.00 for services and materials to provide a Range Recovery Ship (USNS Range Recoverer) to serve as a downrange tracking station for scientific experiments conducted by NASA Wallops Station.

Total cost of these contracts is \$1,619,834.00.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: AUGUST 3, 1965

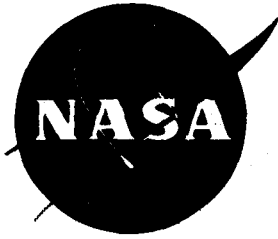
Release No. 65-42

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for air conditioning Building B-60 in accordance with Specification No. P-1293.

Bids will be received until 2:00 p.m. EDT, August 31, 1965. The price range for this work is below \$45,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, AUGUST 3, 1965

Release No. 65-43

CONTRACT AWARDS DURING JULY, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To The Chincoteague Mosquito Control Commission, Chincoteague, Va., in the amount of \$13,404.00 for services and materials for mosquito control.

-- To American Engineers, Richmond, Va., in the amount of \$33,400.00 for services and materials for a Master Site Plan.

-- To Clark, Buhr & Nexsen, Norfolk, Va., in the amount of \$41,960.00 for architect-engineering services for a new assembly shop building and a new launch control building.

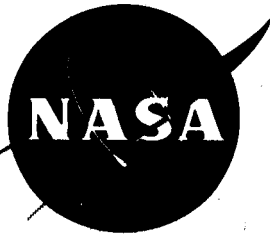
-- To Eastman Kodak Company, Rochester, N. Y., in the amount of \$44,103.00 for services and materials for processing Eastman Kodak Company's film for Fiscal Year 1966.

-- To Northern Radio Company, Inc., New York, N. Y., in the amount of \$50,086.00 for tone keying equipment.

-- To Commander, Sacramento Air Material Area, McClellan Air Force Base, Calif., in the amount of \$121,533.00 for services for phased maintenance, emergency repair, etc., necessary to maintain two (2) EC-121K type aircraft for NASA Wallops for the period from July 1, 1965, through June 30, 1966.

Total cost of these contracts is \$304,486.00.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: SUNDAY, AUGUST 8, 1965

Release No. 65-44

BIOLOGISTS TO BEGIN

TECHNOLOGY TRAINING

PROGRAM AT WALLOPS

Thirty-two professional biologists interested in gaining experience in the operational and engineering aspects of space flight will start a down-to-earth, three-week training program tomorrow.

The biologists will attend the summer institute of the Bio-Space Technology Training Program, sponsored by the University of Virginia and the National Aeronautics and Space Administration. The institute will be conducted at NASA's Wallops Station on Virginia's Eastern Shore.

The potential space biology experimenters will engage in daily discussions, training and laboratory exercises emphasizing the biotechnological aspects of space flight and spacecraft design. They will participate in four sounding rocket launches

- more -

of instrumented biological payloads and hear lectures by outstanding authorities.

Training program consultants and instructors include faculty members from the University of Virginia and other universities and officials of NASA, other Government agencies and the aerospace industry.

The 32 participants come from about 20 states and represent universities, industrial and Government laboratories. They were selected from a large group of applicants.

Discussion and training topics include the known space environment, trajectory and orbital considerations, rocket performance, spacecraft and payload design, biological requirements in space, data handling and instrumentation, and launch and range facilities.

Four modified meteorological Arcas sounding rockets will be used to loft white rats about 20 miles into the upper atmosphere in a demonstration of techniques used to conduct biological experiments in space. Flotation gear and other devices will permit safe helicopter or ship recovery of the cushioned compartments holding the rats. The rocket launchings

are being employed as training aids and are not designed to provide new scientific knowledge.

The small animal payload was developed, integrated with a sounding rocket, and test flown last year by a team of Wallops Station engineers and technicians headed by Larry J. Early. During flight, biomedical information is radioed to ground stations.

The participants, representing all fields of biology, will be assigned to four groups of eight each for the rocket flights. On successive flights the groups will be rotated between the preparation and launch site, the Range Control Center, the Data Acquisition Center, and the recovery ship stationed offshore in the Atlantic Ocean.

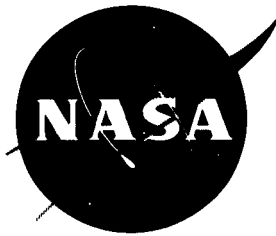
Director of the summer institute is George A. McAlpine, Executive Director of the Industrial Research and Development Center, School of Engineering and Applied Science, University of Virginia, Charlottesville.

The Bio-Space Technology Training Program is managed for NASA Headquarters by Dr. R. E. Belleville, Chief of Behavioral Biology in the Bioscience Programs Division of NASA's Office of Space Science and Applications (OSSA).

Robert L. Krieger, Director of the NASA Wallops Station, Wallops Island, Va., will greet the participants at the opening session and Dr. Orr E. Reynolds, Director of the Bioscience Programs Division of OSSA, will discuss the national space bioscience effort.

Lecturers include: Brig. Gen. Donald Flickinger, Air Force (retired) a Washington D. C. private consultant; Dr. K. O. Lange, Director, Wenner-Gren Aeronautical Research Laboratory, University of Kentucky; Air Force Col. John P. Stapp, Chief, Impact Injury Branch, Armed Forces Institute of Pathology; Dr. Henning Von Gierke, Chief, Biodynamics and Bionics Division, Biophysics Laboratory, Wright-Patterson Air Force Base; Dr. Nello Pace, Professor of Physiology, University of California at Berkeley; Charles H. Blocher, Radio Corp. of America; Horace Castillo, 6571st Aeromedical Laboratory, Holloman Air Force Base; V. Deliberato, General Electric Co.'s Re-Entry Systems Department; Dr. Sam Johnson, North American Aviation Co. Life Sciences Department; Dr. Dale W. Jenkins, Chief, Environmental Biology, NASA Headquarters; and Dr. Sherman Vinograd, of the Space Medicine Office at NASA Headquarters.

Wallops arrangements for the institute are being managed by Phil Ryan with technical assistance provided by George Miles.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY A.M., AUGUST 5, 1965

Release No. 65-45

INTER-AMERICAN METEOROLOGICAL

NETWORK MEETING AT WALLOPS

The National Aeronautics and Space Administration is holding an international meeting at Wallops Station today and tomorrow, August 5th and 6th, to discuss plans for implementing the Inter-American Experimental Meteorological Rocket Network (EXAMETNET).

Purpose of the meeting is to bring together representatives from various countries interested in participating in this cooperative program for North, Central and South America to exchange views on the overall objectives and conduct of the program. Invitations have been extended to Argentina, Brazil, Canada, Mexico, and Peru. Personnel from NASA Headquarters, the U. S. Weather Bureau, and Wallops Station will take part in conducting the two-day meeting.

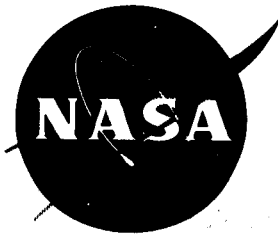
- more -

Initial stations in the cooperative network will be located at Wallops Island, Va., Natal, Brazil, and Chamical, Argentina. Others are expected to be added in the northern and southern hemispheres.

The general purpose of the network is to contribute to studies of atmospheric structure and behavior in the southern hemisphere and to help explain atmosphere differences and similarities between the northern and southern hemispheres.

Personnel from participating countries will receive training at Wallops. Bilateral agreements have already been signed with Argentina and Brazil.

William Spreen, NASA Headquarters, is Program Manager; Dr. Sidney Tewles, U. S. Weather Bureau, is United States Experimenter; and James Bettie, NASA Wallops Station, is Project Manager.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: 3:00 p.m. EDT, FRIDAY
AUGUST 6, 1965

Release No. 65-46

NASA WALLOPS, RICE UNIVERSITY

SIGN OWL EXPLORER

SATELLITE CONTRACT

The National Aeronautics and Space Administration has awarded a contract to Rice University, Houston, Texas, for a new type of Explorer Satellite designed to extend studies of near-earth atmospheric phenomena, particularly auroral activity.

This is an area of study in which the Rice University Department of Space Science has gained considerable experience under the leadership of Dr. Brian J. O'Brien. In addition to sounding rocket experiments with NASA, members of the Rice group have worked in the past with Dr. James A. Van Allen of the State University of Iowa in developing satellite experimental packages.

- more -

Under the cost-reimbursement type contract signed with NASA's Wallops Station, Wallops Island, Va., the University will provide two Owl Explorer spacecraft and a flyable prototype, at a total estimated cost of \$3,676,100.00.

The earliest launch will be sometime in 1967 from the Western Test Range. The launch vehicle will be a four-stage Scout.

Scientific objectives of the Owl Satellite will be to obtain information on high-latitude phenomena such as aurorae and airglow (caused by the bombardment of the upper atmosphere by tiny charged particles) and to measure radiation and radiation loss in the Van Allen belts, auroral particle fluxes, and galactic and solar cosmic rays.

A television camera aboard the spacecraft will point downward to capture a spatial resolution of the structure of auroral displays that can be correlated with data from other observational instruments such as particle detectors and photometers.

The television system will be operated only when the camera views the earth in darkness and will be controlled by a combination of optical and infrared sensors.

The principal scientific investigator will be Dr. O'Brien.

The NASA University Explorers Program, including the Rice project, is an outgrowth of the Agency's working relationships developed over the years with researchers and experimenters at the Nation's universities and colleges. The program, permitting experienced university scientists and engineers to assume greater responsibility in satellite projects, is under the overall direction of NASA's Office of Space Science and Applications, headed by Dr. Homer E. Newell.

Program Manager for the University Explorers and for the Owl Explorer is Raymond Miller, Physics and Astronomy Programs, NASA Headquarters.

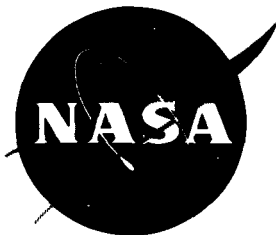
Responsibility for project management is assigned to the NASA Wallops Station with Robert T. Duffy, Assistant Chief, Wallops Flight Test Division, as Owl Project Manager. Deputy Project Manager is Charles E. Manion, also of the Flight Test Division. Wallops responsibilities include project planning and evaluation, scheduling, and contract monitoring.

Dr. O'Brien will have overall direction of the Rice effort, with C. D. Laughlin, of the University's Department of Space Science, responsible for spacecraft systems.

Rice University will be responsible for design, development, fabrication, integration and testing of the satellite, including pre-launch checkout and preparation. Facilities of NASA, where practicable, will be used for any required testing that is beyond the capability of Rice University. Data reduction and analysis also will be handled by the University.

The spacecraft is expected to weigh about 140 pounds and will be put into a nearly circular orbit at around 400 miles altitude. The plane of the orbit will be inclined between 70 and 80 degrees to the equator. The high inclination is designed to bring the Owl over and beyond the auroral zones and deep into the polar regions.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FRIDAY, AUGUST 6, 1965

Release No. 65-47

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for paving and fencing in Small Magazine Area in accordance with Specification No. P-1295.

Bids will be received until 2:00 p.m. EDT, September 2, 1965. The price range for this work is below \$40,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MONDAY P.M., AUGUST 9, 1965

Release No. 65-48

13 SOUNDING ROCKET EXPERIMENTS

CONDUCTED FROM 3 SITES DURING WEEKEND

The National Aeronautics and Space Administration conducted a series of 13 sounding rocket launches at Wallops Island, Va., Point Barrow, Alaska, and Churchill Research Range, Canada, in a 48-hour period, ending this morning.

Coordinated Nike-Cajun launches of acoustic grenades and "falling sphere" experiments began at 7:14 a.m. EDT Saturday and ended at 6:10 a.m. EDT today.

Purpose of the experiments was to obtain data on noctilucent cloud conditions at high latitudes, measure the changes that occur following the noctilucent cloud formations, and to compare upper atmosphere measurements made at the three sites, at altitudes up to about 100 statute miles.

Five launches were conducted at Wallops Island and four at each of the other sites. Twelve actually were fired in a

- more -

24-hour period. The final firing, at Point Barrow, was delayed 24 hours by adverse weather.

Four groups of experiments were conducted almost simultaneously at the three sites beginning with the 7:14 a.m. Saturday launch and at about 8-hour intervals thereafter.

In the grenade experiments, a number of special explosive charges were ejected and detonated as the rockets climbed. In the falling sphere experiments--which were conducted at Wallops--26-inch metallized mylar spheres were ejected and inflated near the rocket's peak. The spheres were tracked by radar as they coasted upward and descended.

The experiments yield a profile of information on atmospheric conditions--winds, temperatures, densities, and pressures. Two of the five launchings at Wallops employed only the inflatable spheres. And three involved the use of both the grenades and a falling sphere.

The experiments were conducted for NASA's Goddard Space Flight Center, Greenbelt, Md., with Wendell S. Smith, the Project Scientist, on location at Fort Churchill for these firings. Dr. Harold Allen of the University of Michigan

served as firing coordinator, at Wallops. The falling sphere payloads were developed by the University of Michigan. Harvey Needleman was the Wallops Project Engineer.

The launchings at Point Barrow, Alaska, were conducted by a team of Wallops Station engineers and technicians consisting of Wayne Gunter, Roger Navarro, Orville Dix, Leonard Moore, George Foster, and Joe Paranzino. Leon Katchen of Goddard served as coordinator at Point Barrow.

The Alaska site is at the Arctic Research Laboratory, directed by Dr. Max Brewer. It is operated by the University of Alaska under contract with the Office of Naval Research.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, AUGUST 10, 1965

Release No. 65-49

SCOUT VEHICLE TEST AND SECOR SATELLITE

LAUNCHED AT WALLOPS

A Scout Evaluation Vehicle (SEV) incorporating a number of engineering improvements was launched on a proving flight by the National Aeronautics and Space Administration from Wallops Station, Wallops Island, Va., at 1:54 p.m. EDT today.

Primary purpose of the mission was to demonstrate in flight the operation of a number of improved vehicle features which have been progressively developed for the Scout program during the past 18 months.

These features included (1) The use of new second and fourth-stage rocket motors with improved thrust characteristics; (2) A test of the Scout's capability to fly a "dog-leg" course from Wallops Island by a guidance technique known as yaw torquing, performed during the third-stage coasting period; (3) Test of in-flight performance of improved spin

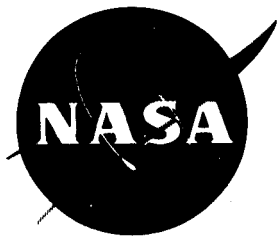
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motors to stabilize the fourth stage of the vehicle; (4) Demonstration of the Scout air transportability concept by launching a vehicle which after complete assembly at Wallops, had been airlifted from and returned to the launch site in simulation of a transcontinental trip. The assembled vehicle with live motors and its transport trailer went through the simulated airlift July 27 in an Air Force C-133. Complete launch readiness checks were repeated after the airlift test.

To take advantage of a small excess payload capability, a 45-pound SECOR (Sequential Collation of Range) satellite, furnished by the U. S. Army Corps of Engineers, was placed in orbit. Purpose of the geodetic satellite is to assist in mapping the surface of the earth and pinpointing the locations of land bodies separated by large expanses of ocean.

Scout is the United States' only solid propellant launch vehicle with orbital capability. It is 72 feet long and weighs 20 tons at lift-off.

Robert T. Duffy was the Launch Operations Director for NASA Wallops Station, and Joseph R. Duke was Project Engineer.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, AUGUST 24, 1965

Release No. 65-50

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for renovations to interiors of Buildings F-3 and F-5 in accordance with Specification No. P-1309.

Bids will be received until 2:00 p.m. EDT, September 16, 1965. The price range for this work is below \$30,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: AUGUST 24, 1965

Release No. 65-51

FIRST U.S. - BRAZIL

SOUNDING ROCKET

LAUNCH CONDUCTED

The first sounding rocket launching to be undertaken jointly by the United States and Brazil was conducted today at Wallops Island, Va., the National Aeronautics and Space Administration announced.

Instrumentation for the sounding rocket payload and the telemetry ground support equipment was constructed jointly by Brazilian Space Commission and NASA engineers at Goddard Space Flight Center. NASA furnished the rocket and use of its Wallops Station facilities. The Brazilian launch team, presently in training at Wallops Station, directed the launch operations and acquired telemetry data during the flight.

Liftoff of the Nike-Apache sounding rocket was at 5:59 p.m. EDT. The 60-pound payload attained a peak altitude

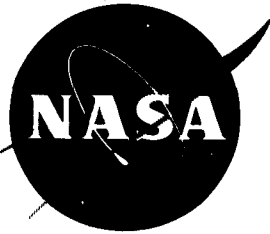
- more -

of about 101 statute miles during the seven-minute flight.

Under a memorandum of understanding signed April 21, 1965, the Brazilian Space Commission---Comissao Nacional de Atividades Espaciais (CNAE)---and NASA agreed to this joint program of investigating the D and E regions of the ionosphere.

The agreement calls for a comparison of sounding rocket measurements of the lower regions of the ionosphere taken from both Wallops Island and Natal, Brazil. Two launchings are planned later this year from the recently activated Brazilian range at Natal, which is located on the magnetic equator.

No exchange of funds between CNAE and NASA is contemplated and results of the experiments will be made available to the world scientific community.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: WEDNESDAY, AUGUST 25, 1965

Release No. 65-52

EXOSPHERE EXPERIMENT CONDUCTED

AT WALLOPS

An experiment to measure the quantity of helium and hydrogen gases and the ionization of helium in the exosphere was conducted by the National Aeronautics and Space Administration at Wallops Island, Va., today.

The exosphere is the outermost portion of the earth's atmosphere. The measurements are made by observing invisible radiation from the sun which is reflected selectively by helium and hydrogen atoms and by helium ions. These phenomena occur at high altitudes and cannot be observed from the ground.

The launch vehicle used for the flight was a four-stage solid propellant Javelin (ARGO D-4), which left the launch pad at 2:31 p.m. EDT. The instrumented payload atop the Javelin weighed 80 pounds and reached a peak altitude of 549 statute

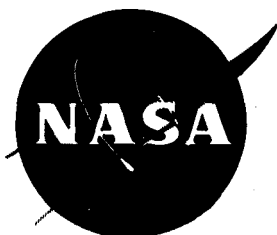
- more -

- 2 -

miles. Data were telemetered to ground receiving stations during the flight. Impact occurred 653 miles downrange in the Atlantic Ocean.

The experiment was furnished by the University of Pittsburg under contract with NASA. Dr. T. M. Donahue was Project Scientist for the University. Norman E. Peterson was the Launch Vehicle Manager for NASA's Goddard Space Flight Center. Harvey C. Needleman was the Project Engineer for the NASA Wallops Station.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: WEDNESDAY, SEPTEMBER 1, 1965

Release No. 65-53

IONOSPHERE EXPERIMENT LAUNCHED

AT WALLOPS

An experiment to measure characteristics of the ionosphere was launched by the National Aeronautics and Space Administration from Wallops Island, Va., at 7:17 a.m. EDT today.

The instrumented payload measured electron and ion densities and temperatures and telemetered the data to ground receiving stations during the flight. Main objective of the mission was to test and compare the operation and performance of five different types of ionospheric plasma probes.

The 80-pound payload was flown on a Nike-Apache vehicle to an altitude of 94 statute miles and impacted 74 miles down-range in the Atlantic Ocean.

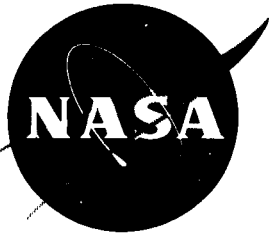
The experiment was conducted for the Southwest Center for Advanced Studies, Dallas, Texas, and the Central Radio Propagation Laboratory of the National Bureau of Standards.

- more -

Dr. W. J. Heikkila is the Project Scientist for the Southwest Center, and Dr. W. Calvert is Associate Project Scientist for CRPL. "We are using the ionosphere as a plasma laboratory for instrumentation tests," Dr. Heikkila said, "because it would be very difficult and costly to simulate these conditions in a laboratory on earth."

This daytime flight will be followed by a similar nighttime launch later this week.

Harvey C. Needleman is the Project Engineer for Wallops Station, responsible for coordinating pre-launch, launch, and tracking operations.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: WEDNESDAY, SEPTEMBER 8, 1965

Release No. 65-54

CONTRACT AWARDS DURING AUGUST, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Boiler Brick and Refractory Company, Richmond, Va., in the amount of \$5,981.00 for replacement of refractories and insulation in two B&W Boilers.

-- To The Chincoteague Mosquito Control Commission, Chincoteague, Va., in the amount of \$13,404.00 for services and materials for mosquito control.

-- To Atlantic Research Corporation, Duarte, Calif., in the amount of \$14,364.00 for architect-engineer services for modifications to Launch Areas 2 and 4.

-- To Hyperion Industries, Watertown, Mass., in the amount of \$46,985.00 for program time receivers and time of day serial to parallel converters.

-- To Ram Engineering Corporation, Annapolis, Md., in the amount of \$56,189.00 for services and materials to furnish and install a color motion picture processor.

-- To Airborne Instrument Laboratory, A Division of Cutler-Hammer, Inc., Long Island, N. Y., in the amount of \$64,450.00 for parametric amplifier systems.

- more -

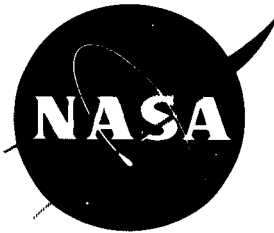
-- To Chief, Bureau of Naval Weapons, Washington, D. C., in the amount of \$100,000.00 for providing services for operation of the JAFNA Radar Facility.

-- To The Everett Corporation, Chincoteague, Va., in the amount of \$104,000.00 for alterations and additions to Photographic Laboratory, Building E-2.

-- To Sangamo Electric Company, Springfield, Ill., in the amount of \$120,105.00 for magnetic tape recorder/reproducer systems.

-- To William Marsh Rice University, Houston, Tex., in the amount of \$3,676,100.00 for services and materials for design, construction and use of two research satellites code-named OWLS.

Total cost of these contracts is \$4,201,578.00.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, SEPTEMBER 9, 1965

Release No. 65-55

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for grounding systems for launch areas on Wallops Island in accordance with Specification No. P-1313.

Bids will be received until 2:00 p.m. EDT, October 7, 1965. The price range for this work is below \$75,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE FRIDAY, SEPTEMBER 10, 1965

Release No. 65-56

IONOSPHERE TEST LAUNCHED

AT WALLOPS

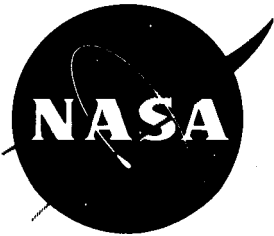
An experiment to measure antenna impedance characteristics in the ionosphere was launched by the National Aeronautics and Space Administration, Wallops Island, Va., at 7:58 p.m. EDT yesterday.

Purpose of the flight was to study the effects of the ionosphere on the operation of antennas and to support future radio astronomy missions in space.

The launch vehicle was a two-stage Nike-Apache sounding rocket. The 55-pound payload was lofted to a peak altitude of 106 statute miles and impacted 82 miles downrange in the Atlantic Ocean.

The experiment was conducted for NASA's Goddard Space Flight Center, Greenbelt, Md. Dr. R. G. Stone was the Goddard Project Scientist. Lloyd A. Lohr was the Goddard Vehicle Manager. Dempsey B. Bruton was the Project Engineer for Wallops Station.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FRIDAY, SEPTEMBER 10, 1965

Release No. 65-57

METEOROLOGICAL ROCKET SERIES

CONDUCTED AT WALLOPS

A series of fifteen Arcas and Hasp meteorological sounding rockets were launched at Wallops Island, Va., by the National Aeronautics and Space Administration in a 39-hour period beginning at 5:45 p.m. EDT Wednesday, September 8, and ending at 8:38 a.m. EDT today.

Primary objectives of the current firings at Wallops are: determination of the daily variations of winds and temperatures, and estimation of solar radiation correction for meteorological rocket payloads planned for use by the Experimental Inter-American Meteorological Rocket Network (EXAMETNET). The diurnal variability of nearly all of the meteorological elements is one of the most striking and consistent features of the study of weather.

These instrumented rockets were launched near time of local sunset, midnight, sunrise, and noon. They achieved

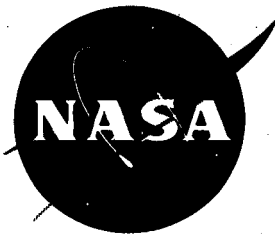
- more -

altitudes of about 180,000 feet, and wind and temperature measurements were obtained as the payloads descended on parachutes. Data and results will be made available to EXAMETNET participants and in turn to the world scientific community.

This was the first series of firings for the newly-formed Experimental Inter-American Meteorological Rocket Network (EXAMETNET). General purpose of the network is to assist in studies of atmospheric structure and behavior in the northern and southern hemispheres and to help explain atmosphere differences and similarities between the two hemispheres.

Participants in this series included Argentine and Brazilian trainees, the U. S. Weather Bureau, the Naval Ordnance Laboratory (NOL), and NASA personnel of the Langley Research Center and Wallops Station.

Initial stations in the cooperative Inter-American network will be located at Natal, Brazil; Chamical, Argentina; and Wallops Island, Va. Others are expected to be added in both hemispheres.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, SEPTEMBER 16, 1965

Release No. 65-58

WALLOPS LAUNCHES IQSY EXPERIMENT

The National Aeronautics and Space Administration launched an ionosphere experiment for the University of Illinois and the GCA Corporation at 4:28 p.m. EDT yesterday from Wallops Island, Va.

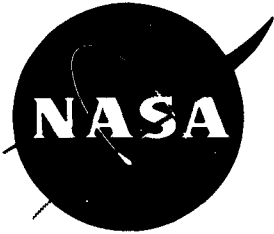
The 51-pound payload was flown on a two-stage Nike-Apache vehicle and reached a peak altitude of 110 statute miles. Impact occurred 96 statute miles downrange.

The payload carried instrumentation to measure electron and ion density and solar radiation in the D and E regions of the ionosphere.

This experiment is part of investigations being made during the International Quiet Sun Year (IQSY) 1964-65, the period during which solar flares and sunspot activity are at a minimum.

The Project Scientist for this experiment is Dr. L. G. Smith of the GCA Corporation and Professor S. A. Bowhill of the University of Illinois is the Technical Director. Ralph D. Welsh is Wallops Station's Project Engineer.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FRIDAY, SEPTEMBER 17, 1965

Release No. 65-59

NASA AEROBEE 150A

LAUNCHES FRENCH

RADIO EXPERIMENTS

The National Aeronautics and Space Administration today launched an Aerobee 150A sounding rocket containing French-built radio propagation experiments designed for later flight on a satellite.

The satellite, FR-1, will be launched for France by NASA in a joint scientific project to study very low frequency (VLF) radio waves and the distribution of ionization in the earth's magnetosphere--the surrounding region of space dominated by the influence of the earth's magnetic field.

The Aerobee and its 197-pound payload was fired at 5:51 p.m. EDT from NASA's Wallops Station, Wallops Island, Va. It reached a peak altitude of about 114 statute miles (183 kilometers) during the flight which lasted nearly eight minutes.

- more -

The payload section was a specially designed cone-cylinder 121 inches long, with the cylinder portion 77 inches in length. At liftoff, four deployable 67-inch antenna booms were mounted flush with the cylinder skin in equally-spaced cavities.

The four antennas, each with a hollow 4-inch diameter aluminum hemisphere at the end, were programmed to pivot outward at about 200,000 feet altitude to an angle 90 degrees to the cylinder.

One loop antenna was mounted in the cone portion and a variety of electronic components, making up the remainder of the VLF assembly, were contained in the attached cylinder portion.

This rocket flight will be followed by an identical one scheduled for next week.

The primary objective of the experiment was to study payload refinements, particularly the functioning of a new type of VLF dipole antenna. Another objective was to study the functioning of a hot cathode in plasma. Two of the antennas were the new type, the other two were of a type successfully tested in two similar flights at Wallops in 1963. The results of the present experiments will determine which type of antenna will be used on the FR-1 satellite.

- 3 -

The memorandum of understanding for the FR-1 program was signed February 18, 1963, between NASA and the French Space Agency, Centre National d'Etudes Spatiales (CNES). The scientific experiments are provided by Centre National d'Etudes des Telecommunications (CNET).

The prototype model of the FR-1 satellite arrived at NASA's Goddard Space Flight Center, Greenbelt, Md., on September 15 for compatibility and integration tests.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, SEPTEMBER 23, 1965

Release No. 65-60

WALLOPS ROCKET LAUNCHING

TIMED WITH ALOUETTE SATELLITE

An ionosphere experiment was launched today by the National Aeronautics and Space Administration from Wallops Island, Va.

The launch vehicle was a four-stage Javelin (ARGO D-4) sounding rocket. Liftoff occurred at 10:36 a.m. EDT.

Primary objectives of the flight were to measure ion and electron densities and temperatures in the upper atmosphere. The 138-pound payload was lofted to an altitude of 495 statute miles and impact occurred 625 miles downrange in the Atlantic Ocean. Data were telemetered to ground stations during the 16-minute flight, and no recovery was required.

The launch was timed to coincide with a pass of the Canadian Alouette Satellite. Sounding rocket measurements

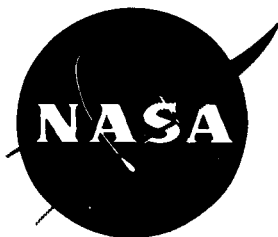
- more -

will be compared and correlated with those of the satellite and with ground-based ionosonde measurements.

Today's experiment was launched for NASA's Goddard Space Flight Center, Greenbelt, Md. Dr. E. J. Maier, Goddard Project Scientist, reported, "A preliminary look at telemetry data indicates that the experiment was successfully completed."

John G. Guidotti was the Goddard Vehicle Manager and Ralph D. Welsh was the Wallops Station Project Engineer.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: SATURDAY, SEPTEMBER 25, 1965

Release No. 65-61

SECOND FRENCH EXPERIMENT

LAUNCHED AT WALLOPS

The National Aeronautics and Space Administration today launched a second Aerobee 150A sounding rocket containing French-built radio propagation experiments designed for later flight on a satellite.

Liftoff occurred at 5:54 p.m. EDT from Wallops Island, Va. The 197-pound payload reached a peak altitude of 120 statute miles (192 kilometers) during the flight which lasted about eight minutes. The first launch in the current series, carrying an identical payload, was conducted last Friday, September 17.

The satellite, FR-1, will be launched for France by NASA, from the Western Test Range, in a joint scientific project to study very low frequency (VLF) radio waves and the distribution of ionization in the earth's magnetosphere.

- more -

Primary objectives of the tests at Wallops are to study payload refinements, particularly the functioning of a new type of VLF dipole antenna, and to study the functioning of a hot cathode in plasma. The results of the present experiments will determine the type of antennas to be used on the FR-1 satellite.

The memorandum of understanding for the FR-1 program was signed February 18, 1963, between NASA and the French Space Agency, Centre National d'Etudes Spatiales (CNES). The scientific experiments are provided by Centre National d'Etudes des Telecommunications (CNET).



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, OCTOBER 5, 1965

Release No. 65-62

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for seawall reinforcement in accordance with Specification No. P-1319.

Bids will be received until 2:00 p.m. EDT, October 14, 1965. The price range for this work is below \$25,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, OCTOBER 5, 1965

Release No. 65-63

CONTRACT AWARDS DURING SEPTEMBER, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

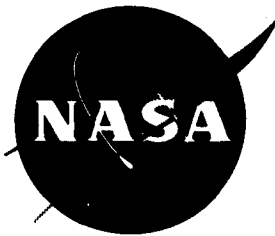
-- To Cox-Frank Corporation, Norfolk, Va., in the amount of \$17,872.00 for air conditioning, Building B-60.

-- To Lance J. Eller, Inc., Keller, Va., in the amount of \$33,988.00 for paving and fencing in Small Magazine Area.

-- To RCA Service Company, Camden, N. J., in the amount of \$86,250.00 for operation and maintenance of FPQ-6 Radar and performance of target signature analysis.

Total cost of these contracts is \$138,110.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: OCTOBER 11, 1965

Release No. 65-64

MOTHER-DAUGHTER EXPERIMENT UNSUCCESSFUL

The National Aeronautics and Space Administration made an unsuccessful attempt to launch a mother-daughter ionosphere experiment for Pennsylvania State University on Saturday night, October 9.

The 99-pound payload was launched on a four-stage Javelin (ARGO D-4) at 9:25 p.m. EDT from NASA's Wallops Station, Wallops Island, Va. The two-part payload, designated "mother" and "daughter," was programmed to separate at an altitude of about 170 miles, to obtain a profile of electron density in the upper atmosphere as the two parts ascended.

The launch vehicle failed to perform properly and the desired results were not achieved. The cause of the malfunction is being investigated.

In a similar launch on October 5, the mother-daughter sections of the payload failed to separate.

- END -



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, 11:00 A.M. EDT
OCTOBER 14, 1965

Release No. 65-65

DEDICATION OF INTERNATIONAL COURT

AT WALLOPS

A flag-raising ceremony was conducted at Wallops Station at 11:00 a.m. EDT today to dedicate the new International Court for display of foreign flags.

Purpose of the International Court, which was recently completed on the Main Base at Wallops, is to fly the flags of foreign countries working here on any given day. The Court consists of a semicircular array of seven flag poles with a facade at the base for displaying the names of the countries.

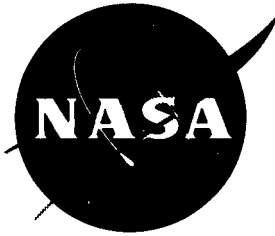
In today's ceremony, the flags of Argentina, Brazil, Italy, and Norway were hoisted along with that of the United States. These are the four countries currently working at Wallops, and a representative from each country participated in the ceremony along with Mr. Robert L. Krieger, Director of Wallops.

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The International Court was constructed in recognition of the important role that Wallops Station plays in the National Aeronautics and Space Administration's international program for cooperation in space research. In recent years Wallops has had visitors from 52 nations. Nine of these countries have sent personnel here, totaling 130, for periods of training ranging from one month to two years. They are: Argentina, Brazil, France, India, Italy, The Netherlands, Norway, Pakistan, and Sweden.

Seven countries have launched experiments at Wallops-- Australia, Canada, France, Italy, Japan, Sweden, and the United Kingdom. Wallops Station has, in turn, sent some of its own personnel at various times to nine countries, to assist them with the development of their space program. These countries are: Argentina, Brazil, India, Italy, The Netherlands, New Zealand, Norway, Pakistan, and Spain.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: OCTOBER 19, 1965

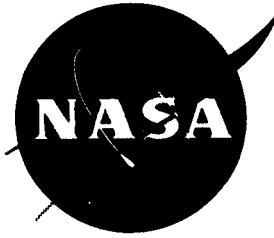
Release No. 65-66

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for additional North Dune Line sand fence in accordance with Specification No. P-1325.

Bids will be received until 2:00 p.m. EST, November 10, 1965. The price range for this work is below \$9,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, OCTOBER 19, 1965

Release No. 65-67

EXPERIMENT AT WALLOPS

LOOKS AT COMET

The National Aeronautics and Space Administration launched a sounding rocket payload high into the atmosphere today to investigate characteristics of the Ikeya-Seki Comet, named for the two Japanese astronomers who discovered it September 18.

The experiment was boosted aloft on an Aerobee 150A from Wallops Island, Va., at 4:00 p.m. EDT. It reached a peak altitude of 111 statute miles.

The 245-pound payload, designed by scientists at the University of Colorado and NASA's Jet Propulsion Laboratory, was instrumented with a scanning spectrometer, a filter wheel photometer, and related equipment to obtain spectra of the head and tail of the comet and to measure radiation. Data obtained will assist in analyzing the materials in the comet.

-more-

An attitude control system, developed by NASA's Goddard Space Flight Center and used on previous missions, was employed on the flight to point the instruments toward the comet.

A similar experiment is scheduled for launch here on Thursday.

The newly-discovered comet, an unanticipated event of great scientific interest, is visible to the naked eye this week in the minutes before dawn and after dusk.

Results of the experiments at Wallops will be coordinated with observations being conducted by scientists at various locations and by different means.

For today's experiment at Wallops, Dr. C. A. Barth of the University of Colorado is the Project Scientist. Ray H. Pless is the Wallops Station Project Engineer.

The Smithsonian Meteor Simulation Project at Wallops-- a unit of the Smithsonian Astrophysical Observatory--is also photographing the comet with Super-Schmidt cameras located here, and at Eastville and Sandbridge, Va., to the south of Wallops. H. C. Marsh is Manager of the Smithsonian project here.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, OCTOBER 21, 1965

Release No. 65-68

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for exterior painting of Buildings F-1, F-2, F-3, and F-6 in accordance with Specification No. P-1326.

Bids will be received until 2:00 p.m. EST, November 18, 1965. The price range for this work is below \$9,500.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, OCTOBER 21, 1965

Release No. 65-69

SECOND COMET SCANNER

LAUNCHED AT WALLOPS

The second Aerobee sounding rocket experiment to obtain measurements of Comet Ikeya-Seki was launched by the National Aeronautics and Space Administration from Wallops Island, Va., at 12:00 noon EDT today.

The 205-pound payload consisted primarily of an Ebert-Fastie scanning spectrometer, and an attitude control system for pointing the instrumentation at the comet. The payload was boosted to a peak altitude of 117 statute miles.

Information radioed back from the payload indicated that the instruments pointed as programmed and that ultraviolet spectral data was obtained. A NASA official said that the solar corona and, most likely, the comet were scanned by the spectrometer aboard the payload. The comet is deep within

-more-

-2-

the solar corona, a gaseous region reaching temperatures above a million degrees and extending millions of miles into space.

W. G. Fastie of Johns Hopkins University was the Project Scientist for this experiment. Ray H. Pless was Wallops Station's Project Engineer.

The first NASA comet experiment was launched here Tuesday, October 19.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 • EXTS. 584 and 579

FOR RELEASE: THURSDAY P.M., OCTOBER 28, 1965

Release No. 65-70

NASA LAUNCHES 12-ROCKET SERIES

FOR METEOROLOGICAL STUDIES

The National Aeronautics and Space Administration launched a series of 12 rockets over a 15-day period this month to carry on a program for meteorological research in the upper atmosphere.

Two-stage Nike-Cajuns, bearing acoustic grenade payloads to gather data on atmospheric conditions in a region ranging from 22 to 56 miles (statute) above the earth, were timed for close proximity launches in "sets" of three from widely-separated launch sites--Point Barrow, Alaska; Churchill Research Range, Canada; and Wallops Island, Va. It was the third series of such experiments conducted from the three sites this year.

The purpose of the program is to gather information on conditions, behavior, and circulation characteristics in the upper atmosphere existing over widely spaced geographic areas under day and nighttime conditions during the various seasons of the year.

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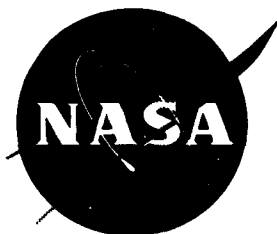
The payloads in the current series contained 11 to 19 grenades--special explosive charges. The grenades were ejected and detonated at programmed altitudes during flight. Measurements of wind directions and speeds, atmospheric densities, pressures, and temperatures are obtained by detecting and locating in space the position of each exploding grenade at the various altitudes and measuring the time of arrival and direction of the sound waves on arrays of sensitive microphones located on the ground.

The first three Nike-Cajuns were launched October 13. The other sets of launches took place on October 19, 23, and 27.

The Project Scientist for the grenade experiments, Wendell S. Smith, of the NASA Goddard Space Flight Center, reported that the data obtained from the flights were "excellent."

The next series of experiments is scheduled to be conducted early next year, in winter season conditions.

Wayne D. Gunter was the Project Engineer for the Wallops Island launchings. The Point Barrow launchings also were conducted by a team of Wallops Station engineers and technicians headed by Ralph D. Welsh.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: OCTOBER 29, 1965

Release No. 65-71

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for fencing at Refuse and Disposal Area in accordance with Specification No. P-1336.

Bids will be received until 2:00 p.m. EST, November 23, 1965. The price range for this work is below \$7,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: November 2, 1965

Release No. 65-72

CONTRACT AWARDS DURING OCTOBER, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Wiley & Wilson, Richmond, Va., in the amount of \$8,001.91 for architect-engineering services for modifications to the Steam Generating Plant, Building D-8.

-- To M. H. Newsome, Inc., Virginia Beach, Va., in the amount of \$13,490.95 for seawall reinforcement.

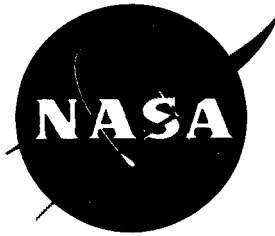
-- To Beaver Valley Painting, Inc., Ambridge, Pa., in the amount of \$18,387.00 for renovations to interiors of Buildings F-3 and F-5.

-- To Ocean Electric Corporation, Norfolk, Va., in the amount of \$23,050.00 for grounding systems.

-- To Harvey Mears, Chincoteague, Va., in the amount of \$31,525.00 for services for maintenance of paved areas.

Total cost of these contracts is \$94,454.86.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: November 4, 1965

Release No. 65-73

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for construction of a High Power Command Facility in accordance with Specification No. P-1337.

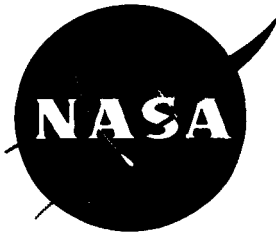
The work in general includes the following:

- (1) The erection of one steel tower upon a spread footing, with electrical as required.
- (2) The furnishing and erection of a spiral stairway adjacent to the tower.
- (3) The construction of 60 ft. x 80 ft. concrete pavement.
- (4) The furnishing and erection of a pre-fabricated steel building; fiberglass insulated; heated and air conditioned; electrical as required.
- (5) Site work, including excavation, filling, grading, and seeding.

Bids will be received until 2:00 p.m. EST, December 2, 1965. The price range for this work is below \$65,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: NOVEMBER 8, 1965

Release No. 65-74

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for construction of an Access Road on Wallops Mainland in accordance with Specification No. P-1339.

Bids will be received until 2:00 p.m. EST, December 7, 1965. The price range for this work is below \$25,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: IMMEDIATE -- NOVEMBER 10, 1965

Release No. 65-75

ARGENTINE-NASA SOUNDING ROCKET

PROJECT EXTENDED

Four sounding rocket payloads will be launched into the ionosphere under a cooperative Argentine-United States agreement, the National Aeronautics and Space Administration announced today.

The agreement extends a previous Argentine-NASA program and provides for the joint study of an ionospheric phenomenon known as "Sporadic E." The project will be conducted by the Argentine Comision Nacional de Investigaciones Espaciales (CNIE) and NASA.

Two daytime and two nighttime launches of Nike-Apache sounding rockets are planned from Chamical, Argentina, to measure electron density and temperature and ion density.

CNIE will provide the personnel for payload fabrication at NASA's Goddard Space Flight Center, Greenbelt, Md., procure

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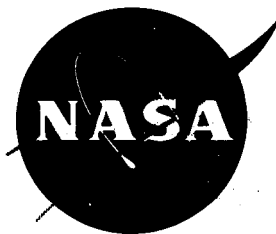
-2-

the rockets and operate the range at Chamical. NASA will provide the equipment and facilities for construction of the payloads and a Nike-Apache launcher on loan. CNIE will be responsible for the reduction and analysis of the data obtained.

No exchange of funds between CNIE and NASA is contemplated and the results of the experiments will be made available to the world scientific community.

A team of Argentine personnel received training at Wallops Station last year, and a second Argentine team is currently in training at Wallops.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: NOVEMBER 19, 1965

Release No. 65-76

IQSY SOLAR EXPLORER SATELLITE

LAUNCHED AT WALLOPS

The National Aeronautics and Space Administration and the Naval Research Laboratory last night launched a satellite to measure and monitor solar X-ray emissions during the final portion of the 1964-65 International Quiet Sun Year (IQSY).

Referred to prior to launch as the IQSY Solar Explorer, developed by NRL, Explorer XXX was placed in orbit by a four-stage Scout from NASA's Wallops Station, Wallops Island, Va. Liftoff occurred at 11:48 p.m. EST.

The international scientific community has been invited to acquire data directly from the satellite. Information obtained will be correlated internationally by scientists conducting studies related to IQSY, a period when solar flares and sunspot activity are at a minimum during an 11-year cycle.

Explorer XXX, by measuring and monitoring solar X-ray emissions and providing immediate data to interested scientists, has the

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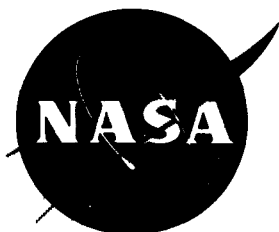
potential for improving forecasts of ionospheric conditions that affect short-wave radio communications; and for developing a warning system for major solar flares which produce intense proton emissions hazardous to manned activities in space.

The 125-pound spacecraft consists of two 24-inch hemispheres separated by a $3\frac{1}{2}$ -inch equatorial band in which are installed 12 photometers for measuring X-ray and ultraviolet emissions from the Sun. Electrical power is supplied by solar cells mounted on the hemispheres. Expected active lifetime is one year.

The satellite will complement and continue the scientific missions of other NASA spacecraft and the NRL's two Solar Radiation (SOLRAD) satellites, 1964-01D, launched in January 1964, and 1965-16D, launched in March 1965.

NASA's Office of Space Science and Applications (OSSA) has overall direction of the Explorer and Wallops Station was responsible for project coordination and launch operations. Tom W. Perry was the Project Coordinator for Wallops Station and Lewis A. Teletski was the Wallops Project Engineer. Robert T. Duffy was the Test Director for countdown and launch operations.

For the U. S. Naval Research Laboratory, R. W. Kreplin is the Project Scientist; P. G. Wilhelm, Project Manager; and H. Friedman and T. A. Chubb, Scientific Investigators.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: DECEMBER 9, 1965

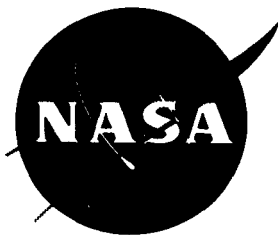
Release No. 65-77

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for renovation of air conditioning and heating systems in Building No. Y-15 in accordance with Specification No. P-1355.

Bids will be received until 2:00 p.m. EST, January 6, 1965. The price range for this work is below \$125,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: DECEMBER 9, 1965

Release No. 65-78

CONTRACT AWARDS DURING NOVEMBER, 1965

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Lewis Brothers Enterprises, Inc., Salisbury, Md., in the amount of \$3,965.00 for painting exteriors of Buildings F-1, F-2, F-3 and F-6.

-- To Charles F. Matthews, Oak Hall, Va., in the amount of \$4,390.00 for Communications Test Pad.

-- To Paul W. Bowden, Chincoteague, Va., in the amount of \$5,959.00 for additional North Dune Line Sand Fence.

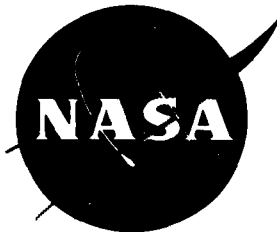
-- To Clark, Buhr, & Nexsen, Norfolk, Va., in the amount of \$8,895.00 for architect-engineering services for renovations to Building D-10.

-- To University of Virginia, Charlottesville, Va., in the amount of \$23,134.00 for Library Services.

-- To Collins Radio Company, Richardson, Texas, in the amount of \$56,577.00 for Frequency Diversity Microwave Multiplexed Carrier System.

Total cost of these contracts is \$102,920.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: DECEMBER 15, 1965

Release No. 65-79

IQSY IONOSPHERE EXPERIMENT

LAUNCHED AT WALLOPS

The National Aeronautics and Space Administration launched an ionosphere experiment for the University of Illinois and the GCA Corporation at 12:00 noon EST today from Wallops Island, Va.

The 51-pound payload was flown on a two-stage Nike-Apache vehicle and reached a peak altitude of 113 statute miles. Impact occurred 114 statute miles downrange.

The payload carried instrumentation to measure electron and ion density and solar radiation in the D and E layers of the ionosphere, 35-70 miles above the earth, whose reflective effects are important to long distance radio communications.

This experiment is part of investigations being made by scientists around the world during the International Quiet Sun Year (IQSY) 1964-65, the period during which solar flares and sunspot activity are at a minimum.

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The Project Scientist for this experiment is Dr. L. G. Smith of the GCA Corporation, Bedford, Mass., and Professor S. A. Bowhill of the Coordinated Science Laboratory, University of Illinois, is the Technical Director. Ray H. Pless is Wallops Station's Project Engineer.

This was the fourth in a series of similar experiments by the University of Illinois, designed to measure seasonal changes in the D and E regions of the ionosphere. Other launchings were conducted at Wallops in April 1964 and June and September 1965.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 884 and 579

FOR RELEASE: THURSDAY, DECEMBER 16, 1965

Release No. 65-80

WALLOPS PERSONNEL ASSIST

WITH LAUNCHES IN BRAZIL

Brazil has successfully launched the first sounding rocket from the Natal Range in a joint program with the National Aeronautics and Space Administration. The launching was conducted yesterday by the Brazilian Space Activities Commission (CNAE).

Instrumentation for the rocket payload and the telemetry ground support equipment was constructed by Brazilian technicians at NASA's Goddard Space Flight Center, Greenbelt, Md.

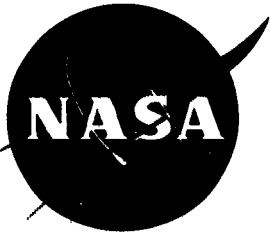
Under a Memorandum of Understanding signed April 21, 1965, the Brazilian Commission and NASA agreed to cooperate in investigating the lower regions of the ionosphere with emphasis on the effects of cosmic rays. The agreement calls for a comparison of sounding rocket measurements taken from NASA's Station at Wallops Island, Va., and from Natal. The Wallops launching was conducted on August 24, 1965. The Brazilian Commission plans to conduct the final launching under the project from Natal on December 18.

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Two Wallops Station personnel--William L. Lord of Pocomoke City, Md., and John M. Hurdle of Chincoteague, Va.--are at the Natal site to assist with the launches. A team of Brazilian engineers and technicians received training at Wallops Station during a period of several months this year.

The project involves no exchange of funds between NASA and CNAE. Results of the experiments will be made available to the world scientific community and will contribute to the observance of 1965 as International Cooperation Year (ICY).

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: JANUARY 10, 1966

Release No. 66-1

ILLINOIS UNIVERSITY

EXPERIMENT UNSUCCESSFUL

The National Aeronautics and Space Administration launched an ionosphere experiment for the University of Illinois and the GCA Corporation at 12:14 p.m. EST today from Wallops Island, Va. Instrumentation failed to function properly, however, and the flight was unsuccessful.

The payload carried instruments to measure electron and ion density and solar radiation in the D and E layers of the ionosphere, 35 to 70 miles above the earth, whose reflective effects are important to long distance radio communications.

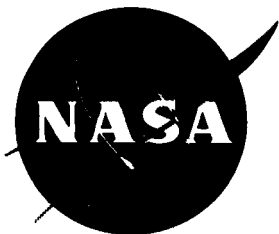
A Nike-Apache sounding rocket lofted the 51-pound payload to a peak altitude of 115 statute miles. Impact occurred 88 miles downrange in the Atlantic Ocean. The telemetry signal was lost about one minute after liftoff and the desired measurements were not obtained. Project officials are investigating the cause of the failure.

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This was the last in a series of seven similar experiments by the University of Illinois over the past two years, designed to measure seasonal changes and other effects in the D and E regions of the ionosphere. The other six launchings were conducted successfully at Wallops in April, July, and November 1964 and in June, September, and December 1965.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: IMMEDIATE, JANUARY 14, 1966

Release No. 66-2

BRAZIL AND WALLOPS

LAUNCH MET ROCKETS

The first meteorological sounding rocket launchings to be conducted from North and South America on the same day under a coordinated program were successfully carried out on January 12, the National Aeronautics and Space Administration announced today.

Under a NASA-Brazilian Space Commission (CNAE) experimental program, the South American launching was performed at Natal and the North American launching took place at NASA's Wallops Station, Virginia.

Boosted Dart rockets carrying chaff payloads were launched from both Natal and Wallops Island.

The Natal launching is the first of a series of 32 which CNAE expects to conduct this year as part of the Inter-American Experimental Meteorological Sounding Rocket Network (EXAMETNET). Brazil, Argentina and the United States are cooperating in this

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network which will eventually have stations in the north-south chain through the Western Hemisphere. From these stations, coordinated sounding rocket launchings will be conducted to obtain experimental data on hemispheric weather patterns.

Under the agreement with Brazil, reached July 1, 1965, NASA lends ground support equipment, trains Brazilian personnel, and provides data obtained at its Wallops Station. Brazil procures the rockets, assembles and launches them, and provides the meteorological data obtained to other participants in the network.

The project involves no exchange of funds between the two countries.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: IMMEDIATE, FRIDAY
JANUARY 14, 1966

Release No. 66-3

CHEMICAL CLOUDS TO BE VISIBLE

ALONG EAST COAST

A National Aeronautics and Space Administration chemical experiment, beginning January 17, will send huge and easily visible colored clouds wafting along the eastern coast of the United States.

Weather conditions permitting, the first of five vapor cloud launchings is scheduled for Monday at 5:38 p.m. EST. The other vapor experiments are to be fired one and one-half, three, and six hours after the first launch, with the remaining experiment scheduled for about 6:45 o'clock Tuesday morning.

The dusk-to-dawn firings for meteorological research in the upper atmosphere will be at NASA's Wallops Station on the Virginia Coast.

Both sodium vapor and trimethylaluminum (TMA) experiments will be conducted in this series. Two-stage solid propellant Nike-Apache research rockets will be programmed to eject trails of vapor from about 50 to 125 statute miles altitude.

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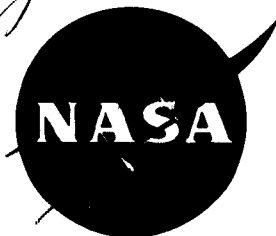
Sodium vapor, easily observable because of its chemical reaction to sunlight, will be used for the dusk and the final experiment in the morning. The huge clouds, which are formed by wind dispersion of the vapor, glow in sunlight at high altitudes above the dark earth. They take on a glowing reddish-orange hue and can be seen by residents of the East Coast several hundred miles from the launch site.

TMA vapor trails will be used in the nighttime firings. The wind-formed TMA clouds have a faint blue-green appearance.

The prime purpose of these experiments is to measure wind velocities and directions at various altitudes in the upper atmosphere. Data on these conditions are obtained by photographing the motion of the trails continuously from a number of ground-based camera sites.

The launches in the current series are timed to provide scientists with information on the changes in wind conditions which may occur between sunset and sunrise.

The experiments are being conducted for the GCA Corporation, Bedford, Mass., under contract to the Goddard Space Flight Center, Greenbelt, Md., which is responsible for carrying out NASA's meteorological research in the upper atmosphere. The program is under the overall responsibility of NASA's Office of Space Science and Applications.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: IMMEDIATE, JANUARY 18, 1966

Release No. 66-4

WALLOPS LAUNCHES SIX EXPERIMENTS OVERNIGHT

The National Aeronautics and Space Administration conducted six experiments between sunset and dawn last night from its Wallops Island, Va., Station.

Five of the payloads were chemical cloud experiments launched at 5:39 p.m., 7:32 p.m., 9:00 p.m., 12:12 a.m. and 6:31 a.m. EST. The twilight and dawn firings were sodium vapor experiments which generated reddish-orange clouds visible for hundreds of miles along the East Coast. The other three payloads consisted of trimethylaluminum (TMA) vapor trails which formed blue-green clouds high above the earth. The payloads were flown on Nike-Apache research rockets and the vapor trails were ejected at altitude ranges of about 30 to 130 statute miles.

Purpose of these experiments was to measure wind velocities and directions at various altitudes in the upper atmosphere. Data on wind conditions are obtained by photographing the

-more-

motion of the trails from five camera sites within a 100-mile radius of Wallops Island.

The launchings were conducted for the GCA Corporation, Bedford, Mass., under contract to NASA's Goddard Space Flight Center, Greenbelt, Md. Ralph D. Welsh was the Wallops Station Project Engineer, responsible for coordinating pre-launch, launch, and tracking operations.

At 10:19 p.m. another Goddard experiment was launched on an Aerobee 150A sounding rocket. This was an astronomy experiment to measure energy emissions from two stars, Sirius and Rigel. Preliminary data indicate that the star tracker did not lock on the stars, however, and this problem is being investigated.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: JANUARY 25, 1966

Release No. 66-5

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids as follows:

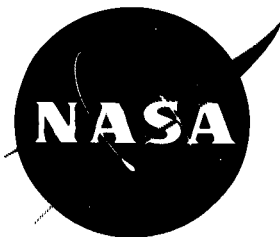
-- For services and materials necessary for construction of an Additional Storm Drainage System in accordance with Specification No. P-1374. Bids will be received until 2:00 p.m. EST, February 17, 1966. The price range for this work is below \$35,000.00.

-- For services and materials necessary for construction of an Additional Parking Area in accordance with Specification No. P-1375. Bids will be received until 2:00 p.m. EST, February 16, 1966. The price range for this work is below \$9,500.00.

Under U. S. Government procurement practices, both jobs will be awarded to small business firms.

Plans and specifications may be obtained from the Procurement Officer, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: February 4, 1966

Release No. 66-6

Wallops Launches Three

"Falling Sphere" Experiments

The National Aeronautics and Space Administration yesterday sent aloft two Nike-Cajun sounding rockets from Wallops Island, Va., carrying "falling sphere" experiments to measure air density in the upper atmosphere. The experiments were conducted at 1:31 p.m. and 8:54 p.m. EST so that atmospheric densities during daytime and nighttime conditions could be compared.

A similar experiment in this series was conducted here January 25 at 8:52 p.m. EST.

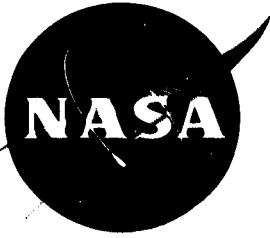
Each payload consisted of two aluminum-coated mylar plastic spheres which were ejected and inflated by capsules of isopentane gas to 26 inches in diameter. The spheres were ejected at about 55 statute miles altitude and continued to drift upward as high as 100 statute miles, then floated toward the Earth. Radar "skin tracking" of the spheres' ascent, descent, and drift provided the data for calculating densities at various altitudes.

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The launchings were conducted for the University of Michigan, Ann Arbor, Michigan. John W. Peterson was the Project Scientist for the University. Harvey C. Needleman was the Project Engineer for Wallops Station, responsible for coordinating pre-launch, launch and tracking operations.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: February 4, 1966

Release No. 66-7

CONTRACT AWARDS DURING

DECEMBER 1965 AND JANUARY 1966

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To John C. Anderson, Marion, Md., in the amount of \$1,795.00 for Fencing at Refuse and Disposal Area.

-- To Ocean Electric Corporation, Norfolk, Va., in the amount of \$6,700.00 for Installation of Coaxial Cable.

-- To Charles F. Matthews, Oak Hall, Va., in the amount of \$7,617.00 for Access Road.

-- To Hercules Powder Company, Wilmington, Del., in the amount of \$29,662.00 for Electric Squibs.

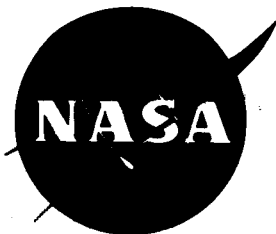
-- To The Everett Corporation, Chincoteague, Va., in the amount of \$31,500.00 for High Power Command Facility.

-- To Collins Radio Company, Dallas, Tex., in the amount of \$45,979.00 for Modification and Overhaul of Radio Transmitters.

-- To Data Contol Systems, Inc., Danbury, Conn., in the amount of \$107,550.00 for Subcarrier Discriminators, Bit Synchronizer, and Associated Equipment.

Total cost of these contracts is \$230,803.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 22337

TELEPHONE: VALLEY 4-3411 - EXTS. 384 and 579

FOR RELEASE: February 10, 1966

Release No. 66-8

WALLOPS LAUNCHES 5TH

SCOUT REENTRY HEATING TEST

A rocket-propelled 210-pound payload plunged back into the Earth's atmosphere at 18,000 miles per hour last night in a reentry test of low-density heat shield material.

National Aeronautics and Space Administration officials today reported the experiment, launched from the NASA Wallops Station in Virginia, provided essential test data by radio to downrange ships and aircraft.

A four-stage Scout sent the blunt-nosed payload on an arching trajectory over the Atlantic Ocean. Liftoff occurred at 7:55 p.m. EST. Peak altitude was 112 miles. Impact was about 1,100 miles downrange from Wallops and 450 miles southeast of Bermuda.

A continuous real-time telemetry channel furnished data before and after the 1-minute communications blackout period

-more-

caused by reentry. The aircraft photographed the visible portion of the reentry.

A delayed telemetry system, used successfully on previous reentry flights to transmit blackout-period information, failed to operate, apparently due to a transmitter malfunction. However, the continuous channel, by furnishing data on post-blackout conditions (temperatures and measurements of material consumption) will permit evaluation of total performance and correlation with previous ground tests.

The experiment was designed and managed by scientists of NASA's Langley Research Center, Hampton, Va., with Joseph M. Hallissy, Jr., serving as Project Manager. This was the fifth flight in the Langley Center's Scout Reentry Heating Project sponsored by NASA's Office of Advanced Research and Technology (OART). For Wallops Station, Robert T. Duffy was Director of countdown and launch operations and Melvin Saltzberg was Project Engineer, responsible for coordinating pre-launch, launch, and tracking operations.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 384 and 579

FOR RELEASE: FEBRUARY 11, 1966

Release No. 66-9

GRENADE SERIES

PROBES UPPER ATMOSPHERE

The National Aeronautics and Space Administration launched a series of nine rockets carrying grenade payloads during the last 10 days to make meteorological investigations of the upper atmosphere during the winter period.

Similar experiments have been and will be conducted throughout the year to observe changes which may occur in atmospheric conditions during the various seasons. Two-stage Nike-Cajun research rockets each carrying a payload of 19 acoustic grenades were launched in sets from the three widely-spaced launch sites--Point Barrow, Alaska; Churchill Research Range, Canada; and Wallops Island, Virginia.

The first three rockets were launched on February 1st at 3:12, 3:46, and 9:02 p.m. EST. The second and third sets were launched on February 10th about 12 hours apart to provide observation of the upper atmosphere during conditions of day

-more-

and night. They were sent aloft at 2:09, 2:48 and 3:00 a.m. EST followed by the remaining three at 1:00, 1:41 and 4:30 p.m. EST.

The purpose of the grenade experiment program is to gather information on the upper atmosphere between 20 and 60 miles altitude over widely spaced geographic areas under day- and nighttime conditions during the various seasons of the year.

The grenades--special explosive charges--were ejected and detonated at programmed altitudes. The position of each grenade at detonation was determined by radio measurements of range, azimuth and elevation. The time of arrival and direction of the sound waves were measured by means of arrays of sensitive microphones located on the ground. As a result, wind directions and speed, atmospheric densities, pressures and temperatures can be determined.

The Project Scientist for the grenade experiments, Wendell S. Smith of the NASA Goddard Space Flight Center, Greenbelt, Md., reported that the rockets performed satisfactorily and good data were obtained from all experiments.

Ray H. Pless was the Project Engineer for the Wallops Island launchings. The Point Barrow launchings were conducted by a team of Wallops Station personnel headed by Roger Navarro.

The next series of grenade experiments is scheduled for the spring season.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FEBRUARY 14, 1966

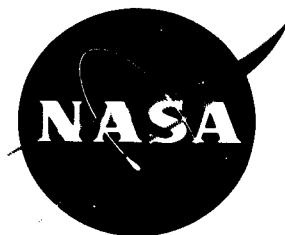
Release No. 66-10

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for alterations and repairs to Buildings N-116, W-65, and X-15 in accordance with Specification No. P-1378.

Bids will be received until 2:00 p.m. EST March 15, 1966. The price range for this work is below \$9,500.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FEBRUARY 17, 1966

Release No. 66-11

RICE UNIVERSITY EXPERIMENT

CONDUCTED AT WALLOPS

The National Aeronautics and Space Administration conducted an ionosphere experiment for Rice University, Houston, Texas, at 11:16 a.m. EST today from Wallops Island, Va.

The 49-pound payload, housed in a 7-foot fiberglass nose cone, was lofted to a peak altitude of 110 statute miles by a two-stage Nike-Apache sounding rocket.

Purpose of the experiment was to search for intense electrical currents that have been theoretically predicted to flow at high altitudes over the earth. The currents are believed responsible for changes in the earth's magnetic field that occur during the morning. The theory predicts that the currents are most intense at around 11:00 a.m. and strongest at about 120 miles altitude.

The Rice payload incorporated a sensitive magnetometer to detect the magnetic field caused by the currents. Data were

-more-

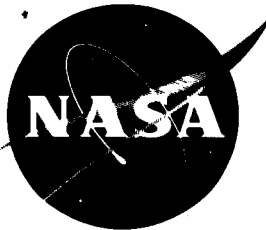
telemetered from the payload to ground stations at Wallops Island during the flight.

The payload was designed and built by graduate students of Rice University's Space Science Department, in collaboration with the engineering staff of the Department's Space Science Facilities. The project was under the direction of Professor R. C. Haymes.

Wayne D. Gunter was the Project Engineer for Wallops Station, responsible for coordinating pre-launch, launch, and tracking operations.

A similar experiment for Rice University was launched successfully at Wallops in November 1965.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 57

FOR RELEASE: MARCH 2, 1966

Release No. 66-12

CONCURRENT ROCKET FLIGHTS

PROBE UPPER ATMOSPHERE

Two companion space probes were sent blazing aloft by the National Aeronautics and Space Administration today for a comprehensive study of the upper atmosphere at various altitudes and the influence of radiation from the sun. The probes were launched about 5 minutes apart from the NASA's Wallops Station, Va., for simultaneous measurements of the properties of the neutral atmosphere, the ionosphere, and solar radiation intensities. Observations were made through a region about 120 to 380 statute miles above the Earth.

An Aerobee 150A was sent up through the atmosphere at 12:55 p.m. EST with experiments conducted by scientists of the Air Force Cambridge Research Laboratories (AFCRL), Bedford, Mass. The 180-pound payload contained instrumentation to point at the sun and measure solar ultraviolet radiation and electron temperatures as a function of altitude. The liquid-fueled

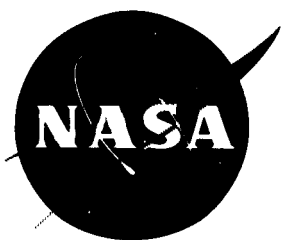
-more-

Aerobee boosted the experiments to a peak altitude of about 142 statute miles. The scientific data obtained in the flight were sent back to ground stations by telemetry.

The companion probe, a four-stage solid propellant Javelin blasted off its launcher at 1:00 p.m. EST to send the NASA's first rocket-borne geoprobe into the upper atmosphere while the Aerobee was still aloft. The 185-pound probe contained six experiments to obtain simultaneous measurements of neutral gas densities, temperatures, and composition; ion densities and composition; and electron temperatures and densities. Data on the vertical distribution of these properties were telemetered back during the geoprobe's arcing flight, which had a peak altitude of 380 miles.

The information obtained in the concurrent experiments will be correlated in an effort to better understand the effects of solar radiation on the ionosphere and upper atmosphere.

The geoprobe was designed and built by the NASA Goddard Space Flight Center, Greenbelt, Md. Wendell S. Smith is the Goddard Project Scientist and Ralph D. Welsh was the Wallops Project Engineer. Dr. Ronald Newburgh served as Project Scientist for the AFCRL experiments and Wayne D. Gunter was the Wallops Project Engineer. (A similar Aerobee experiment is scheduled for launch tomorrow.)



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: March 14, 1966

Release No. 66-13

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for alterations to Building No. M-16 in accordance with Specification No. P-1396.

Bids will be received until 2:00 p.m. EST, April 12, 1966. The price range for this work is below \$150,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: March 21, 1966

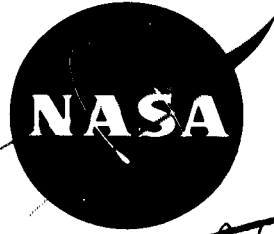
Release No. 66-14

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for erection of a Flammable Liquid Shed in accordance with Specification No. P-1401.

Bids will be received until 2:00 p.m. EST, April 14, 1966. The price range for this work is below \$9,500.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: April 6, 1966

NASA Admin.

Release No. 66-15

CONTRACT AWARDS DURING

FEBRUARY AND MARCH 1966

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Charles F. Matthews, Oak Hall, Va., in the amount of \$5,198.00 for Additional Parking Area.

-- To Paul W. Bowden, Chincoteague, Va., in the amount of \$6,444.00 for Repairing Earth Dyke at South End of Island.

-- To Clark, Nexsen & Owen, Norfolk, Va., in the amount of \$17,600.00 for Architect-Engineer Services for Additions to Building Y-60; Alterations and Additions to Building E-2; Alterations to Building D-137A; Primary Power Loop, Area W, Wallops Island; and Alterations to Tracking Facilities at Coquina Beach, North Carolina.

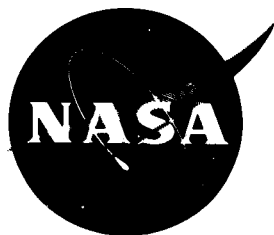
-- To William J. Gillespie, Chincoteague, Va., in the amount of \$21,494.00 for Additional Storm Drainage.

-- To Wiley & Wilson, Richmond, Va., in the amount of \$23,009.00 for Architect-Engineer Services for Rehabilitation of Steam and Condensate Lines.

-- To Cox-Frank Corporation, Norfolk, Va., in the amount of \$83,987.00 for Renovations of Air Conditioning and Heating Systems, Building Y-15.

Total cost of these contracts is \$157,732.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: April 6, 1966

Sp. Probs
Release No. 66-16
Sounding Rpts

WALLOPS LAUNCHES

IONOSPHERIC EXPERIMENT

An experiment to measure characteristics of the ionosphere was launched by the National Aeronautics and Space Administration from Wallops Island, Va., at 11:52 a.m. EST today.

Purpose of this experiment was to obtain electron density profile measurements in the ionosphere by means of a plasma resonance probe, and to obtain data concerning the sporadic E phenomenon (excess electron density) in the valley region between the E and F layers of the ionosphere.

The 59-pound payload was flown on a Nike-Apache vehicle to an altitude of 108 statute miles and impacted 67 miles downrange in the Atlantic Ocean. Data were telemetered to ground stations during the flight.

The experiment was conducted for the Environmental Science Services Administration Laboratories, Boulder, Col.,

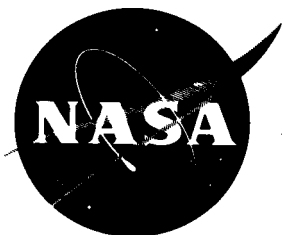
-more-

and the Graduate Research Center of the Southwest, Dallas, Tex. Dr. Wynne Calvert of ESSA's Aeronomy Laboratory is the Project Scientist and Dr. Walter Heikkila of GRCS is the Associate Project Scientist.

Ralph D. Welsh is the Project Engineer for Wallops Station, responsible for coordinating pre-launch, launch, and tracking operations.

This was the first of three similar experiments to compare a number of different techniques for measuring characteristics of the upper atmosphere and the ionosphere (regions of electrically-charged particles in the upper atmosphere). The second launch is scheduled for tomorrow night, and the third experiment is to be conducted sometime next week.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MONDAY, APRIL 18, 1966

Release No. 66-17

WALLOPS ANNOUNCES

ENGINEERING AID EXAM

NASA Wallops Station recently announced a Civil Service examination for Engineering Aid, which will be open to all qualified applicants.

The Engineering Aid/Technician Trainee Program at Wallops combines academic and on-the-job training to prepare qualified trainees to become skilled specialists in the development, maintenance, and operation of various technical equipment and functions in aerospace technology and engineering.

The annual starting salary is \$3,814. Applicants must pass a written aptitude test to qualify. The examination will take about 2-1/2 hours.

Application must be made on Application Card Form 5000-AB, available at any Post Office. This form must be filed with the Board of U. S. Civil Service Examiners, NASA, Wallops

-more-

Island, Virginia, not later than May 2, 1966. Applications received after that date will not be accepted unless they are received by mail and bear a postmark on or before May 2, 1966.

The minimum age is 16 for high school graduates only. Otherwise the minimum age is 18. There is no maximum age.

The test will be given at Wallops Station. Applicants will be notified of the date and time to appear.

Trainees in this program become career-conditional Federal employees. They study mechanical drawing, electronics theory, mathematics, physics and other applicable courses, and receive on-the-job training under close supervision. Those who satisfactorily complete the increments of training receive periodic promotions.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: APRIL 25, 1966

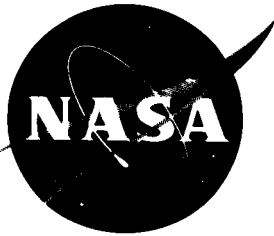
Release No. 66-18

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for replacement of telephone cable in accordance with Specification No. P-1421.

Bids will be received until 2:00 p.m. EDT, May 19, 1966. The price range for this work is below \$5,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 2, 1966

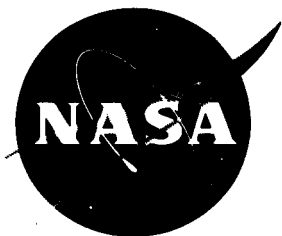
Release No. 66-19

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary to fabricate and install air conditioning ductwork in Building No. X-35 in accordance with Specification No. P-1427.

Bids will be received until 2:00 p.m. EDT, May 26, 1966. The price range for this work is below \$5,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 3, 1966

Release No. 66-20

BRAZIL JOINS NASA IN UPPER ATMOSPHERE

EXPERIMENTS

The first of a series of sounding rocket launchings in a cooperative Brazilian-United States project to obtain meteorological information took place at Natal, Brazil on May 1, the National Aeronautics and Space Administration announced today.

The experiments seek wind, temperature and other data at altitudes between 25 and 60 miles by use of the acoustic grenade technique. Small acoustic grenades are ejected and detonated at regular intervals during ascent of the rocket. Average temperature and winds in the area between grenade detonations are obtained by measuring the exact time of detonation of each grenade, time of arrival of each sound wave at ground microphones, and the exact position of each detonation.

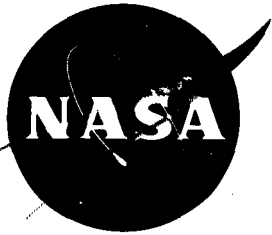
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Synoptic meteorological information is being obtained by coordinating the Brazilian launchings with others at NASA's Wallops Station, Va.; Fort Churchill, Canada; and Point Barrow, Alaska. One experiment was conducted at each site within a 5-hour period May 1. A second set of grenade experiments is scheduled as soon as weather permits at the four sites.

The project is being carried out under an agreement concluded by the Brazilian Space Commission (CNAE) and NASA on November 15, 1965.

Personnel from the Brazilian Space Commission (CNAE) received training last year at NASA's Wallops Station and Goddard Space Flight Center, Greenbelt, Md. The launchings at Point Barrow, Alaska, are being conducted by a team of Wallops Station personnel. The project is under the overall coordination of the Goddard Space Flight Center.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 4, 1966

Release No. 66-21

ARGENTINA LAUNCHES METEOROLOGICAL ROCKET

IN INTER-AMERICAN PROGRAM

The Argentine Space Commission (CNIE) successfully launched the first in a series of meteorological rockets from its launch range at Chamical. The launching was conducted by Argentine scientists and technicians under a cooperative program with the National Aeronautics and Space Administration under an agreement signed last year.

The Chamical launching, carried out on April 27, was one of a series of thirteen which the Commission expects to conduct this year as part of the Inter-American Experimental Meteorological Rocket Network (EXAMETNET).

Brazil, Argentina, and the United States are cooperating in this network which will eventually have a north/south chain of stations in the Western Hemisphere. From these stations, coordinated sounding rocket launchings will be conducted to

-more-

obtain experimental data on hemispheric weather patterns. Brazil launched its first rocket under the program at its Natal site in January.

Under the agreement with Argentina, NASA lends ground support equipment, trains Argentine personnel, and exchanges data. Argentina purchases the rockets, assembles and launches them, and provides the meteorological data obtained to other participants in the network. Teams of engineers and technicians from Argentina and Brazil received training at NASA's Wallops Station last fall in assembly, launch and tracking. The project involved no exchange of funds between the participants.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, MAY 12, 1966

Release No. 66-22

NASA TO ASSIST GREECE

WITH SOLAR ECLIPSE EXPERIMENTS

Studies of the solar eclipse of May 20 will be carried out in Greece under a cooperative project between the Greek National Committee for Space Research and the National Aeronautics and Space Administration.

During the eclipse, experiments will be flown on seven instrumented Boosted Arcas rockets launched from the USNS Range Recoverer, stationed several miles off-shore from Koroni in the southern Peloponnesus. Objective of the experiments is to investigate ionization below 56 miles due to changes in the solar ultraviolet and X-ray flux caused by passage of the moon between the Earth and Sun.

A 200-foot antenna and a van containing instrumentation will be located on the shore near the town of Koroni, to record the signals from the rockets.

-more-

NASA's portion of the project is under the direction of the Goddard Space Flight Center, Greenbelt, Md., while the Greek portion is being coordinated by the Ionospheric Institute of the University of Athens. The launchings will be conducted from the deck of the Range Recoverer, a converted coastal freighter, by a team of NASA Wallops Station personnel headed by Robert T. Long.

NASA is providing the rockets, payloads and the instrumentation van, and the Greek Space Committee is responsible for logistics, range safety, meteorological information at the time of launching, and for ground-based observations of the eclipse from other parts of Greece, for comparative purposes.

The project is being coordinated with the rocket-borne experiments of the European Space Research Organization (ESRO) with which NASA will exchange the data obtained. Results of the experiments will be made available to the world scientific community.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: May 11, 1966

Release No. 66-23

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for alterations to Building U-25 in accordance with Specification No. P-1436.

Bids will be received until 2:00 p.m. EDT, June 1, 1966. The price range for this work is below \$25,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 13, 1966

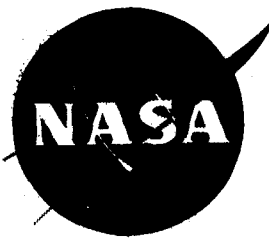
Release No. 66-24

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for exterior painting of 66 buildings in accordance with Specification No. P-1435.

Bids will be received until 2:00 p. m. EDT, June 2, 1966. The price range for this work is below \$75,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 13, 1966

Release No. 66-25

18 METEOROLOGICAL ROCKETS

LAUNCHED IN 3 DAYS

AT WALLOPS

A series of 18 meteorological sounding rockets were launched by the National Aeronautics and Space Administration at Wallops Island, Va., during a three-day period ending at 9:59 a.m. EDT today.

The first launch occurred at 4:45 p.m. EDT May 10 and successive firings were conducted at intervals ranging from 10 minutes to six hours throughout the day and night. Ten specially-instrumented high altitude weather balloons were interspersed among the rocket firings.

Instrumented payloads were carried to altitudes of about 200,000 feet by the rockets, and transmitted information on atmospheric temperature, density and pressure as they descended by parachute. Similar information was transmitted by the special 8-foot diameter weather balloons as they rose to

-more-

altitudes of about 130,000 feet. Precision radars tracked both balloon and rocket payloads to determine speed and direction of the high altitude winds.

This intensive series of launches comprised a multi-purpose experiment to investigate the daily cycle of wind and temperature variations in the upper atmosphere, to compare the results of various rocket and balloon measuring systems, and to study the effects of radiation from the sun on the meteorological instruments.

ARCAS and HASP meteorological rockets were used in the experiments. The ARCAS is an 8-foot long, 4½-inch diameter, end-burning rocket which carries a 12-pound payload. The HASP is a 9-foot long, 3-inch diameter internal-burning rocket which propels a highly-streamlined "dart" with a 6-pound payload. Both types are small enough to be carried by one man.

The series was a joint experiment of several Government agencies, under the management of NASA's Langley Research Center, with Harold B. Tolefson as Project Manager and James C. Manning as Project Engineer. Launch operations were performed by NASA's Wallops Station, Wallops Island, Va., with Roger L. Navarro as the Project Engineer. Participating agencies other than NASA were the U. S. Army, Navy, Air Force, and the Environmental Science Services Administration (ESSA).



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 16, 1966

Release No. 66-26

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for Bituminous Concrete Resurfacing of Streets and Parking Areas in accordance with Specification No. P-1444.

Bids will be received until 2:00 p.m. EDT, June 7, 1966. The price range for this work is below \$50,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 18, 1966

Release No. 66-27

CONTRACT AWARDS

DURING APRIL 1966

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Elizabeth Engineering Corporation, Dover, Del., in the amount of \$4,150.00 for erection of a Flammable Liquid Storage Shed.

-- To Guaranteed Supply Company, Greensboro, N. C., in the amount of \$4,450.00 for cleaning and recoating interiors of Aviation Fuel Storage Tanks E-25 and E-27.

-- To Franklin Institute, Philadelphia, Pa., in the amount of \$42,497.00 for engineering report covering the hazards involved in operation, handling and maintaining squibs at Wallops Station.

-- To Joseph S. Floyd Corporation, Norfolk, Va., in the amount of \$139,568.00 for alterations to Building M-16.

Total cost of these contracts is \$190,665.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 18, 1966

Release No. 66-28

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids as follows:

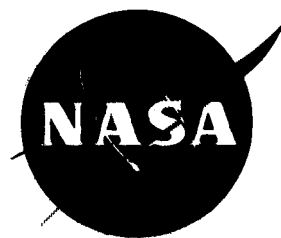
-- For services and materials necessary for painting of seven elevated towers in accordance with Specification No. P-1460. Bids will be received until 2:00 p.m. EDT June 8, 1966. The price range for this work is below \$50,000.00.

-- For services and materials necessary for slurry sealing of spalled concrete surfaces (runways, taxiways, and one roadway) in accordance with Specification No. P-1462. Bids will be received until 2:00 p.m. EDT June 9, 1966. The price range for this work is below \$30,000.00.

Under U. S. Government procurement practices, both jobs will be awarded to small business firms.

Plans and specifications may be obtained from the Procurement Officer, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: THURSDAY, MAY 26, 1966

Release No. 66-29

WALLOPS HIRES 52 SUMMER

EMPLOYEES

To help provide summer employment for local young people and teachers, NASA Wallops Station has hired 52 summer employees.

Twenty of these were hired in support of President Johnson's Youth Opportunity Campaign which began last year. These young men and women are in the 16 through 21 age bracket, and are high school graduates or graduating seniors. They were required to file applications with the Virginia Employment Commission at Exmore, Va., or Maryland State Employment Service, Snow Hill, Md. They will earn \$1.25 per hour and will perform duties as "blue collar workers." Last year's YOC program was very successful. It was of benefit to the students and to the Station.

Twenty-five young men and women have been employed under the Office and Science Assistant Program, and will

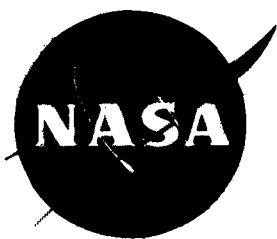
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be paid at the rate of \$3814 to \$4641 per annum. These students must be accepted in college and plan to major in mathematics, engineering or the physical sciences. This program also includes college freshmen, sophomores, and juniors. The written test for this program was given on February 5, 1966.

In addition to these 45 young people, seven college and high school faculty members have been employed for the summer. Two of these are college professors (Physics) who will work in Aerospace Technology. The other five are local high school science teachers who will work at various facilities and thereby learn many aspects of rocket launching and space research.

Some of the employees will begin work in June, others in July.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579.

FOR RELEASE: MAY 18, 1966

Release No. 66-30

ASTRONOMY EXPERIMENT

CONDUCTED AT WALLOPS

An experiment to measure the brightness of stars was launched by the National Aeronautics and Space Administration at Wallops Island, Va., early today.

The 188-pound payload, flown on an Aerobee 150A sounding rocket, carried eight photoelectric photometer/telescopes to look at the stars and record ultraviolet radiation or light in four spectral bands.

The Aerobee rocket lofted the telescopes and related instrumentation to a peak altitude of 131 statute miles, high above most of the Earth's atmosphere, to get a clear view of ultraviolet radiation which does not penetrate the atmosphere and therefore cannot be observed from the ground. Liftoff occurred at 12:02 a.m. EDT.

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Converted to coded radio signals, the data were telemetered or transmitted to ground receiving stations during the 7½-minute flight.

The experiment was conducted for the University of Wisconsin with Dr. R. C. Bless of the University's Space Astronomy Laboratory as Chief Payload Scientist. George E. Kraft of NASA's Goddard Space Flight Center, Greenbelt, Md., was the Aerobee Vehicle Manager. Roger L. Navarro was the Project Engineer for Wallops Station, responsible for coordinating pre-launch, launch, and tracking operations.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 20, 1966

Release No. 66-31

EXPERIMENT AT WALLOPS

RECORDS SIGNALS

FROM OUTER SPACE

A radio astronomy experiment was sent high over the Atlantic Ocean off Wallops Island, Va., today by scientists and technicians of the National Aeronautics and Space Administration.

Purpose of the experiment was to measure the average intensity of radio signals, or "cosmic radio noise," originating outside the solar system -- in the Milky Way and from other celestial sources.

The results are expected to yield new information useful to scientists studying the problems of the formation of our galaxy, and other physical processes occurring in the Milky Way.

Laden with radio frequency receivers, transmitters, whip antennas, magnetometers, and solar aspect sensors, the

-more-

100-pound payload was boosted in a suborbital ballistic trajectory with an apogee of 570 statute miles.

Measurements were made at frequencies which cannot be accurately detected by ground-based receivers. This was accomplished by placing two simple telescopes--each consisting of a 120-foot dipole antenna and radio receiver--above the Earth's ionosphere.

Each 120-foot antenna was formed by deploying two 60-foot booms in space. The antennas were 2-inch wide metal ribbons which unrolled from the payload and curled into half-inch diameter metal tubes.

These antennas picked up the weak radio signals or "noise" from outer space. The data in turn were telemetered or radioed back to Earth and recorded at three receiving stations during the 20-minute flight. The receiving stations were located at Wallops Island, Bermuda, and Coquina, N. C.

The launch vehicle was a four-stage, 50-foot, solid propellant Javelin (Argo D-4) developing 100,000 pounds of thrust at sea level. Liftoff occurred at 3:04 p.m. EDT. The spent fourth-stage motor and payload landed 620 miles downrange in the Atlantic Ocean. No recovery operation was involved.

The experiment was conducted by NASA's Goddard Space Flight Center, Greenbelt, Md. with J. K. Alexander as Project Director. Launch and tracking operations were performed by NASA Wallops Station, with Harvey C. Needleman acting as Project Coordinator.

This was one in a series of experiments leading to the Radio Astronomy Explorer satellites to be developed and launched by NASA in the future, under the direction of Dr. Robert G. Stone of the Goddard Space Flight Center.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: MAY 23, 1966

Release No. 66-32

U.S.-GREEK LAUNCHINGS

MADE FROM SHIP

Five successful sounding rocket launchings were conducted from the deck of the USNS Range Recoverer during an eclipse of the sun in Greece May 20, the National Aeronautics and Space Administration announced today.

The rocket launchings, part of a cooperative project of the Greek National Committee for Space Research and NASA, were planned to investigate ionization of the upper atmosphere during an eclipse of the sun.

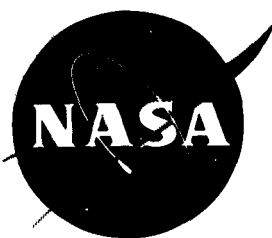
The ship from which the Boosted Arcas rockets were launched was stationed several miles off shore from Koroni in the southern Peloponnesus. An antenna and an instrumentation van were located on shore to record signals from the rockets. The launchings were conducted by a 7-man team from NASA's Wallops Station, Wallops Island, Va. The Ionospheric Institute of the University of Athens coordinated the Greek portion of the project; the

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NASA portion was under the direction of the Goddard Space Flight Center, Greenbelt, Md. Results of the experiments will be made available to the world scientific community.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: JUNE 1, 1966

Release No. 66-33

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids as follows:

-- For services and materials necessary for construction of a Primary Power Loop (extending a primary power line approx. 6,000 ft., modifications to existing underground power line, & construction of 3 new equipment shelters) in accordance with Specification No. P-1459. Bids will be received until 2:00 p.m. EDT June 6, 1966. The price range for this work is below \$100,000.00.

-- For services and materials necessary for installation of a new aluminum canopy on Building No. W-65 in accordance with Specification No. P-1461. Bids will be received until 2:00 p.m. EDT June 10, 1966. The price range for this work is below \$9,500.00.

-- For services and materials necessary for alterations to Facility D-137A (Water Treatment Plant) in accordance with Specification No. P-1464. Bids will be received until 2:00 p.m. EDT June 13, 1966. The price range for this work is below \$40,000.00.

-- For services and materials necessary for construction of an addition to Facility E-2 (Cafeteria) in accordance with Specification No. P-1465. Bids will be received until 2:00 p.m. EDT June 14, 1966. The price range for this work is below \$75,000.00.

Under U. S. Government procurement practices, all four jobs will be awarded to small business firms.

Plans and specifications may be obtained from the Procurement Officer, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY, JUNE 7, 1966

Release No. 66-34

ZERO GRAVITY EXPERIMENT

LAUNCHED AT WALLOPS

A zero gravity experiment was successfully launched on a ballistic trajectory at 11:57 a.m. EDT today by the National Aeronautics and Space Administration's Wallops Station with the new WASP sounding rocket.

Purpose of the flight was to study propellant management problems encountered in space vehicles during zero gravity coast periods.

The 1,500^{pound} payload consisted of a scale model of a liquid hydrogen fuel tank two feet in diameter and four feet long, partially filled with a colored ethyl alcohol. Ethyl alcohol was chosen because it is easy to use and its surface energy properties provide a good simulation of cryogenic propellants like liquid hydrogen.

The payload reached a peak altitude of 148 statute miles and impacted 330 miles downrange from Wallops Island in the Atlantic Ocean. No recovery was involved.

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The experiment was observed with two television cameras which were extended on booms to a distance of five feet from the spacecraft once it left the atmosphere. Televised pictures were transmitted during the flight.

A total of seven minutes of weightlessness, or zero-gravity, was produced. The objective of the flight was to induce minor thrust during weightlessness to determine sloshing effects and to evaluate how well the ring type baffle collects and stores the liquid over the pump inlets where it will be available for later use.

Data from this experiment will be used to verify and extend the laws explaining how the size of a tank affects the behavior of liquids under zero gravity conditions. This is of interest to launch vehicle development programs such as Centaur, Saturn 1B and Saturn V since the upper stages of these vehicles are being designed to coast in orbit and then restart their engines.

The project is being conducted by NASA's Lewis Research Center, Cleveland, Ohio. It is an extension of the Center's weightlessness studies using a 100-foot drop tower, AJ-2 research aircraft and smaller Aerobee sounding rockets. Harold Gold is Project Manager.

The WASP (Weightless Analysis Sounding Probe) was developed by Douglas Aircraft Corp. of Charlotte, N. C., under the direction of Lewis Research Center. It is a two-stage, spin-stabilized vehicle using solid propellant motors. It is 47 feet tall and 31 inches in diameter. Jack G. McArdle, Assistant WASP Project Manager, is responsible for vehicle development and management for Lewis.

The launch operations were conducted by NASA's Wallops Station, Wallops Island, Va., with Wayne D. Gunter as Project Coordinator.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FRIDAY, JUNE 10, 1966

Release No. 66-35

WALLOPS LAUNCHES

RADIATION SATELLITE

FOR AIR FORCE

The National Aeronautics and Space Administration launched a scientific research satellite for the U. S. Air Force early today from Wallops Island, Va. The launch vehicle was a four-stage solid propellant Scout. Liftoff occurred at 12:15 a.m. EDT.

The 170-pound satellite carried simulated human tissue shaped into spheres of varying sizes to record the effects of space radiation, in another phase of the Air Force's continuing study of biological hazards facing man in space.

The experiment is expected to tell scientists how much radiation damage an astronaut's body would undergo in a similar manned flight, thereby determining how long a man can stay in space at one time, and how often he can safely return to that environment. The experiment is expected to relay information from space for about one year.

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Designated OV3-4, the satellite was provided by the Air Force's Office of Aerospace Research (OAR). On board are eight tissue-equivalent spheres -- the largest of them six inches in diameter -- which scientists call "mock-ups of portions of the human torso."

The plastic spheres equipped with sensors to measure radiation energy deposits as the satellite whirls in orbit were designed by scientists in the Air Force Weapons Laboratory at Kirtland AFB, New Mexico, a branch of the Research and Technology Division, Air Force Systems Command (AFSC).

Inside the plastic spheres are tissue-equivalent ion chambers and new devices known as linear energy transfer spectrometers. The instruments will give readings on the amount of space radiation which would affect a man's skin, his blood-forming organs, and his gastro-intestinal tract.

According to 1st Lt. Allen Thede of the Weapons Laboratory, the primary purpose of the continuing space radiation studies is to gain sufficient information upon which to base complex computer codes for accurately predicting the kind and degree of radiation man encounters in space.

On past Gemini flights the codes predicted within 20 percent the amount of radiation this country's astronauts

were actually exposed to. The goal is to predict with 100 percent accuracy the amount of radiation man must cope with in his space journeys.

Lt. Thede calls his experiment a "solid state space radiation monitoring system," and describes it as "the most sophisticated instrumentation of its type."

Traveling in an elliptical orbit, the satellite will also give measurements on the Van Allen radiation belt and will gauge the decay of residual radiation in the man-made Starfish Belt. The Starfish Belt was created by earlier nuclear detonations.

The OV (for orbiting vehicle) satellites used for the space radiation studies are being launched under the Aerospace Research Support Program (ARSP) which is managed by OAR. Through the program OAR makes satellites available to scientists for getting their experiments into space.

The OV3 series of six satellites, which are launched by Scout, are being provided under the technical direction of OAR's Air Force Cambridge Research Laboratories (AFCRL), with C. H. Reynolds as Program Manager. Four of these were built by Space General Corporation of Los Angeles and the first was successfully launched from Vandenberg AFB, Calif., in April. The Scout rockets are produced by the Ling-Temco-Vought Aerospace Corp. of Dallas (LTV).

Today's launch operations were conducted by NASA's Wallops Station, Wallops Island, Va., with Louis A. Teletski as Project Coordinator. Joseph F. Geary, Jr., of AFCRL was the Payload Manager.

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Preliminary orbital elements are as follows:

Apogee	-	2,591 nautical miles
Perigee	-	349 " "
Inclination to equator	-	40.84 degrees
Orbital period	-	143.9 minutes

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: JUNE 14, 1966

Release No. 66-36

UNIVERSITY OF ILLINOIS

EXPERIMENT SUCCESSFUL

The National Aeronautics and Space Administration launched an ionosphere experiment for the University of Illinois and the GCA Corporation at 5:18 a.m. EDT today from Wallops Island, Va.

The payload carried instruments to measure electron density in the lower ionosphere (D region), approximately 35 to 50 miles above the earth, whose reflective effects are important to long distance radio communications. The experiment was conducted near sunrise during a time when the ionosphere tended to absorb rather than reflect radio signals.

A Nike-Apache sounding rocket lofted the 50-pound payload to a peak altitude of 115 statute miles. Impact occurred 93 miles downrange in the Atlantic Ocean.

This was the fifteenth in a series of similar experiments by the University of Illinois during the past 2½ years, designed to measure changes in the D and E regions of the ionosphere.

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The Project Scientist for this experiment is Dr. Leslie G. Smith of the GCA Corporation, Bedford, Mass., and Professor S. A. Bowhill of the University of Illinois is the Technical Director. Roger L. Navarro is Wallops Station's Project Engineer, responsible for coordinating pre-launch, launch, and tracking operations.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: JULY 5, 1966

Release No. 66-37

CONTRACT AWARDS DURING

MAY AND JUNE 1966

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To C. C. Oliphant and Son, Inc., Laurel, Del., in the amount of \$1,892.00 for fabricating and installing air conditioning ductwork in Building No. X-35.

-- To E. R. Stephens, Chincoteague, Va., in the amount of \$10,700.00 for alterations to Building No. U-25.

-- To The Chincoteague Mosquito Control Commission, Chincoteague, Va., in the amount of \$13,000.00 for services and materials for mosquito control.

-- To Paul W. Bowden, Chincoteague, Va., in the amount of \$14,000.00 for services and materials to provide garbage and trash removal.

-- To The K. Kessler Co., Inc., Fremont, Ohio, in the amount of \$22,400.00 for painting of elevated towers.

-- To Milgo Electronic Corp., Miami, Fla., in the amount of \$27,369.00 for modification to Digital Recording System.

-- To Byron Motion Pictures, Inc., Washington, D. C., in the amount of \$30,017.00 for services and materials for processing Eastman Kodak Company film.

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-- To Lance J. Eller, Keller, Va., in the amount of \$31,500.00 for bituminous concrete resurfacing of streets and parking areas.

-- To Technitrol Engineering Corp., Philadelphia, Pa., in the amount \$32,000.00 for services and materials to provide reproduction facilities.

-- To Harvey Mears, Chincoteague, Va., in the amount of \$39,000.00 for services and materials for freight delivery services.

-- To Harvey Mears, Chincoteague, Va., in the amount of \$41,000.00 for services and materials for operation of communications equipment.

-- To Petroleum Helicopters, Inc., Lafayette, La., in the amount of \$52,500.00 for services and materials to provide helicopter recovery services.

-- To Harvey Mears, Chincoteague, Va., in the amount of \$60,000.00 for services and materials to provide transportation services.

-- To National Bureau of Standards, Boulder, Colorado, in the amount of \$60,000.00 for operation and maintenance of an Ionosphere Sounding Station.

-- To Reeves Instrument Company, Garden City, N. Y., in the amount of \$63,500.00 for providing services necessary to modify, operate and maintain MPS-19 Radar Systems, OA-626 Computer, and Ancillary Meteorological Electro-mechanical Systems.

-- To Ocean Electric Corp., Norfolk, Va., in the amount of \$63,729.00 for primary power loop.

-- To Public Health Service, Dept. of Health, Education and Welfare, Washington, D. C., in the amount of \$66,800.00 for providing a Health Service Program at Wallops Station.

-- To Vitro Services, A Division of Vitro Corp., Fort Walton Beach, Fla., in the amount of \$82,569.00 for development of dual frequency capability for an AN/MPS-19 Radar System.

-- To Chief, Bureau of Naval Weapons, Washington, D. C., in the amount of \$100,000.00 for providing services for operation of the JAFNA Radar Facility.

-- To Technitrol Engineering Corp., Philadelphia, Pa., in the amount of \$108,000.00 for services and materials to provide Structural and Airport Firefighting Services.

-- To Power and Combustion, Inc., Baltimore, Md., in the amount of \$114,215.00 for steam generator complete with feed water heater, pumps and accessories.

-- To Harvey Mears, Chincoteague, Va., in the amount of \$165,000.00 for services and materials to provide janitorial services.

-- To Commander, Military Sea Transportation Service (MSTS), Washington, D. C., for \$500,000.00 to provide a Range Recovery Ship for use as a Downrange Tracking Facility.

-- To Environmental Science Services Administration, Weather Bureau, Washington, D. C., for \$550,000.00 for services and materials to provide meteorological services.

Total cost of these contracts is \$2,249,191.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: TUESDAY A.M. 's
July 12, 1966

Release No. 66-38

CHEMICAL CLOUDS TO BE VISIBLE

ALONG EAST COAST

A National Aeronautics and Space Administration chemical experiment will send huge and easily visible colored clouds wafting along the eastern coast of the United States between sunset July 12 and sunrise July 13.

Weather conditions permitting, the first of five vapor cloud launchings is scheduled for Tuesday at 9:00 p.m. EDT. The other vapor experiments are to be fired at approximately 1:00, 3:00, 4:00, and 5:00 a.m. EDT Wednesday, July 13.

The dusk-to-dawn firings for meteorological research in the upper atmosphere will be at NASA's Wallops Station on the Virginia Coast.

Both sodium vapor and trimethylaluminum (TMA) experiments will be conducted in this series. Two-stage solid propellant Nike-Apache research rockets will be programmed to eject trails of vapor from about 50 to 125 statute miles altitude.

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Sodium vapor, easily observable because of its chemical reaction to sunlight, will be used for the dusk and the final experiment in the morning. The huge clouds, which are formed by wind dispersion of the vapor, glow in sunlight at high altitudes above the dark earth. They take on a glowing reddish-orange hue and can be seen by residents of the East Coast several hundred miles from the launch site.

TMA vapor trails will be used in the nighttime firings. The wind-formed TMA clouds have a faint blue-green appearance.

The prime purpose of these experiments is to measure wind velocities and directions at various altitudes in the upper atmosphere. Data on these conditions are obtained by photographing the motion of the trails continuously from a number of ground-based camera sites within a 100 mile radius of Wallops Island. Clear weather is required to obtain good photography.

The launches in the current series are timed to provide scientists with information on the changes in wind conditions which may occur between sunset and sunrise, with particular emphasis on the wind profile in the period following midnight.

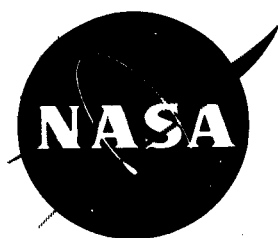
A similar series was conducted from Wallops Island in mid-January, when launchings were concentrated in the period between sunset and midnight.

The experiments are being conducted for the GCA Corporation, Bedford, Mass., under contract to the Goddard Space Flight Center, Greenbelt, Md., which is responsible for carrying out NASA's meteorological research in the upper atmosphere. The program is under the overall responsibility of NASA's Office of Space Science and Applications.

If weather conditions are unfavorable Tuesday night, the launchings will be attempted on successive nights until fired.

J. F. Bedinger of the GCA Corporation is the Project Director. W. S. Smith of the Goddard Space Flight Center is the Project Scientist. Harvey C. Needleman is the Wallops Station Project Coordinator.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337
TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: July 13, 1966

Release No. 66-39

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for alterations to the tracking facility located at Coquina Beach, Dare County, North Carolina, in accordance with Specification No. P-1501.

Bids will be received until 2:00 p.m. EDT, August 9, 1966. The price range for this work is below \$75,000.00. Under U. S. Government procurement practices, the job will be awarded to a small business firm.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: JULY 14, 1966

Release No. 66-40

NASA-GERMAN EXPERIMENT

LAUNCHED AT WALLOPS

A cooperative German-American experiment to measure electron density in the ionosphere was successfully carried out at NASA's Wallops Station, Wallops Island, Va., today, the National Aeronautics and Space Administration has announced.

A variable frequency impedance probe was carried to an altitude of 121 statute miles by a Nike-Apache sounding rocket, under an agreement between the German Federal Ministry for Scientific Research and NASA.

Professor Karl Rawer, Director of the Ionospheric Institute of Breisach, Germany, was responsible for the variable frequency impedance probe and K. G. Jakobs served as German Project Manager.

NASA's portion of the project was under the direction of Dr. Siegfried Bauer of the Planetary Ionospheres Branch of the Goddard Space Flight Center, Greenbelt, Md., with Leo Blumle acting as Project Scientist. NASA furnished two radio propagation experiments and a Nike-Apache sounding rocket.

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There was no exchange of funds between the cooperating agencies. Results of the experiments will be made available to the world scientific community.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: AUGUST 16, 1966

Release No. 66-43

HORIZON SCANNER EXPERIMENT

LAUNCHED AT WALLOPS

A 550-pound instrument package was rocketed to about 380 miles altitude early today in an experiment to study the Earth's horizon.

The suborbital experiment was conducted by the National Aeronautics and Space Administration as part of Project Scanner to obtain data needed to design and develop improved horizon-scanning instrumentation for future space missions.

The 13.5-minute flight was launched from the NASA Wallops Station, Wallops Island, Va., at 2:18 a.m. EDT. Preliminary radio data indicated the flight achieved its objectives.

A two-channel radiometer measured radiated energy from the horizon in two wave-length bands: 14 to 16 microns, associated with carbon dioxide in the upper atmosphere, and 20 to 40 microns, associated with water vapor.

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A star mapper telescope provided data on the attitude of the spin-stabilized payload.

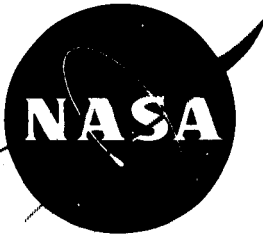
Project Scanner is a phase of horizon definition research managed by the NASA Langley Research Center, Hampton, Va. Horizon definition and measurement are important to spacecraft stabilization and navigation techniques.

Howard J. Curfman, Jr., of Langley, is Project Manager. Ralph D. Welsh, Jr., is the Launch Coordinator for Wallops Station.

The spacecraft and a portion of the instrumentation were designed, fabricated, assembled, and tested by the Systems and Research Division of Honeywell Company, Minneapolis, Minn.

The dual-radiometer assembly, the prime instrument aboard the spacecraft, was developed by the Santa Barbara Research Center, a subsidiary of the Hughes Aircraft Company, Goleta, Calif. The star mapper was built by Baird-Atomics, Inc., Waltham, Mass.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: AUGUST 17, 1966

Release No. 66-44

SECOND AEROBEE 350

LAUNCHED SUCCESSFULLY

The National Aeronautics and Space Administration today conducted the second launch of an Aerobee 350, a new high-performance research rocket which features a main stage comprised of four liquid-fuel Aerobee 150 engines and a solid-fuel Nike booster. The 53-foot rocket, launched at 3:50 p.m. EDT today from the NASA Wallops Station, on the Virginia coast, carried over 400 pounds of instrumentation for a dual-purpose engineering-space science mission.

The primary purpose of the launch was to evaluate the 350's performance. The first full flight test of the rocket was conducted in June, 1965, to check out its flight characteristics and demonstrate its capabilities as a scientific sounding rocket. The vehicle's performance was excellent. Today was the first use of the 350 for space research.

-more-

Three scientific experiments were carried, accounting for nearly half of the payload instrumentation. The NASA Goddard Space Flight Center conducted an experiment to measure the effects of the earth's ionosphere and magnetic field on radio frequency antennas. The information will be needed for interpretation of radio emissions to be studied by the future Radio Astronomy Explorer satellite. Another Goddard experiment was designed to measure X-ray emissions from the sun and Crab Nebula. The third experiment was carried for the University of Minnesota, for the purpose of gathering data on electric waves in the ionosphere.

The Aerobee 350, which develops a maximum thrust of over 60,000 pounds, reached a peak altitude of 222 statute miles and impacted in the Atlantic Ocean about 106 miles from the launch site. Approximately 13.5 minutes of rocket performance and experiment data were sent back from the flight by telemetry. John H. Lane, NASA Aerobee 350 Project Scientist, reported that a preliminary examination of vehicle data indicated that the rocket's performance was very close to predicted.

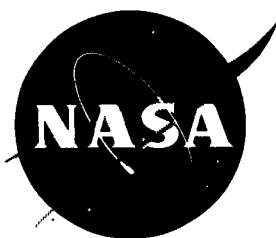
The 350 was developed by the NASA to give heavy scientific payloads having delicate instrumentation a "soft ride" to high

altitudes--the liquid propulsion system producing lower acceleration and less vibration than solid-fueled rockets. The 350 will boost a payload of 150 pounds to 290 miles and its present maximum-weight payload of 500 pounds to 210 miles. Future flights, which will include launches from the White Sands Missile Range, N. Mex., as well as from Wallops Island, may carry payloads as heavy as 1,000 pounds.

The rocket, with an average payload, is 50 feet long and has a diameter of 22 inches. Its gross weight, less payload, is over 3.5 tons. The four main stage Aerobee 150 liquid engines each have a sea-level thrust of 4100 pounds and burn for about 52 seconds. The solid-fuel Nike booster has a thrust of 52,000 pounds. The main stage and booster fire almost simultaneously to give the Aerobee the required launch velocity. The Nike burns for about 3.2 seconds and drops away.

The Aerobee 350 was developed for the NASA Sounding Rocket Program. The vehicle was designed and built by the Space-General Corporation of El Monte, Calif., under contract to the Goddard Space Flight Center, in Greenbelt, Md. Overall direction of the Sounding Rocket Program is under the NASA Office of Space Science and Applications, Washington, D. C.

Wayne D. Gunter was the Launch Coordinator for Wallops Station.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: AUGUST 26, 1966

Release No. 66-45

FOUR ROCKETS FIRED

WITH SATELLITE PASS

Four sounding rockets were sent skyward within an hour's time by the National Aeronautics and Space Administration today, in conjunction with the passage of an earth satellite, Explorer XXXII, the second U. S. Atmosphere Explorer. The rockets were fired from the NASA Wallops Station, Va., at pre-determined intervals in a period from 2:13 to 3:11 p.m. EDT, as the spacecraft passed northward off the East Coast through the middle latitudes, from 20 to 60 degrees, at an altitude of about 150 miles (statute).

The prime objective of the series was to correlate measurements of the properties, characteristics, and conditions of the upper atmosphere obtained by the rocket-borne experiments with similar measurements made by the Atmosphere Explorer, which was launched May 22, of this year, for investigations of the upper atmosphere on a global basis. The series includes

-more-

two more sounding rocket launchings to observe day-to-night changes in the upper atmosphere. The flights are scheduled for 3:00 and 3:20 a.m. Sunday, August 28, as part of the series but not timed with a satellite pass.

The experiments represented a combined NASA-University-Air Force research endeavor. The series was led off by an experiment conducted by scientists of the Air Force Cambridge Research Laboratories to study solar ultraviolet (UV) radiation entering the atmosphere.

The experiment was flown on a liquid-fueled Aerobee 150A, at 2:13 p.m. EDT, when the Explorer was near the twentieth parallel, and reached an altitude of 132 statute miles. Measurements of UV were made through a region from about 60 miles to apogee.

Ultraviolet radiation effects cause heating of the upper atmosphere. The main purpose of the experiment was to determine the region in which the radiation is dissipated--absorbed--by observing the change of radiation as the rocket moves through the atmosphere.

The primary experiments of the series, for comparing data with satellite measurements, involved Thermosphere Probes, joint experiments of the NASA Goddard Space Flight Center and

the University of Michigan. The probes are experiments designed for investigations, with sounding rockets, in the Thermosphere--regions above 50 miles.

The probes were launched by two-stage solid-propellant Nike-Tomahawk rockets at 2:31 and 2:51 p.m. The experiments took measurements of temperatures, composition, densities, and pressures from about 80 up to 200 miles. The launches were timed to make measurements of these parameters in the upper atmosphere immediately before and after the satellite passed.

The fourth launch, by a Nike-Apache at 3:11 p.m., with the satellite up near 60 degrees latitude, sent another Goddard and University of Michigan experiment aloft to obtain data on temperatures, pressures, and densities by another technique, the Pitot-Static tube. The purpose of the experiment was to gather the data in a region from 10 to 60 miles to supplement measurements made by the probes. The Pitot-Static tube experiment again will be launched in conjunction with the third Thermosphere Probe for the nighttime observations.

All data from the rocket flights were sent to ground receivers by telemetry. The Project Scientist for these experiments reported that preliminary examination of telemetered data indicated excellent results.

Measurements made by satellite and sounding rockets, in near-vertical trajectories, offered scientists a comprehensive 3-dimensional study of the upper atmosphere in the middle latitudes. The Atmosphere Explorer, traveling through the latitudes at a given longitude, provided data on the region's atmosphere at satellite altitudes. The rocket experiments, launched from about 38 degrees latitude, provided a vertical profile of the atmosphere near the center of the region.

L. H. Brace, of the Goddard Space Flight Center, was the Project Scientist for the experiments. The Field Director for the series was G. R. Carignan, of the University of Michigan. Project Scientist for the AFCRL experiment was C. W. Chagnon. The Project Engineers for Wallops Station, responsible for coordinating pre-launch, launch, and tracking operations, were Roger Navarro, Wayne Gunter, and Dempsey Bruton.

The NASA Atmosphere Explorer projects and aeronomy and meteorological sounding rocket projects are conducted by the Goddard Space Flight Center, Greenbelt, Md. Overall program direction is under the NASA Office of Space Science and Applications (OSSA), Washington, D. C.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: September 6, 1966

Release No. 66-46

ARTIFICIAL CLOUDS

TO BE VISIBLE

ALONG EAST COAST

The National Aeronautics and Space Administration will launch two vaporized barium cloud experiments from Wallops Island, Va., this week if weather conditions are favorable. The huge green-red-blue clouds may be visible over much of the eastern half of the United States.

The experiments are a cooperative project between the Ministry of Scientific Research (BMwF) of the Federal Republic of Germany and the NASA.

Primary objective is to obtain measurements of electric fields and wind motion in the upper atmosphere by photographing and tracking the movement of ionized barium clouds. It is ultimately hoped that this technique can be used to learn more about electromagnetic fields in space and interaction between the solar wind and ionized barium clouds.

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The twilight launchings are scheduled for 8:06 p.m. EDT on Wednesday, September 7 (on a Javelin 4-stage rocket) and at 7:47 p.m. EDT Thursday, September 8 (on a Nike-Tomahawk 2-stage rocket). If weather conditions are unfavorable, attempts will be made on successive nights, with slight variations in launch times.

Containers in each payload are filled with granulated barium mixed with copper oxide. The chemical mixture is ignited and ejected at intervals during the flight of the rocket. For the Javelin launch, releases will occur at 500 kilometers (310 statute miles) and 920 kilometers (570 miles). For the Nike-Tomahawk launch, releases are programmed to occur at 200 kilometers (125 miles) altitude, and at 260 kilometers (about 160 miles) on both the ascending and descending leg of the trajectory.

In each case, the vaporized barium cloud at first appears light green tinged with red. Momentarily a large dark blue cloud emerges and forms an elongated pattern along the lines of the earth's magnetic field. This ionized cloud may expand to 1600 kilometers (1000 miles) or more in length and, illuminated by the sun's rays, may be visible for 30 minutes to an hour.

The clouds are expected to drift in a northerly direction. They will be observed and photographed from camera stations along the east coast and on Bermuda.

The Project Scientist for these experiments is Dr. Reimar Luest of the Max-Planck Institute for Extra-terrestrial Physics, Munich, Germany. Hans Neuss of the Max-Planck Institute is the Scientific Project Director for BMwF. David Adamson of the Langley Research Center is the NASA Scientific Director. Norman E. Peterson of NASA's Goddard Space Flight Center is the Vehicle Systems Manager. Ralph D. Welsh is the Project Engineer for Wallops Station.

Under the agreement between BMwF and NASA, results of the experiments will be made freely available to the world scientific community.

-END-



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: September 7, 1966

Release No. 66-47

CONTRACT AWARDS DURING

JULY AND AUGUST 1966

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded the following contracts:

-- To Pavement Seals, Inc., Norfolk, Va., in the amount of \$18,200.00 for slurry sealing of spalled concrete surfaces.

-- To Joseph S. Floyd, Inc., Norfolk, Va., in the amount of \$31,370.00 for alterations to Building D-137A.

-- To Zoomar, Inc., Glen Cove, N. Y., in the amount of \$34,940.00 for boresight television.

-- To University of Virginia, School of General Studies, Charlottesville, Va., in the amount of \$41,520.00 for engineering technician training and re-training program.

-- To Sangamo Electric Co., Springfield, Ill., in the amount of \$42,715.00 for magnetic tape record/reproduce system.

-- To E. R. Stephens, Chincoteague, Va., in the amount of \$55,200.00 for alterations to Building E-2.

-- To Roy W. Gregory Construction Co., Inc., Norfolk, Va., in the amount of \$61,294.00 for alterations to tracking facility at Coquina Beach, N. C.

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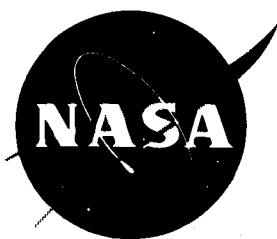
-- To Reeves Instrument Company, Division of Dynamics Corp. of America, Garden City, N. Y., in the amount of \$63,500.00 for providing services necessary to modify, operate and maintain MPS-19 Radar Systems, OA-626 Computer and Ancillary Meteorological Electromechanical Systems.

-- To General Electric Co., Syracuse, N. Y., in the amount of \$67,000.00 for computer programming services.

-- To Sacramento Air Materiel, McClellan Air Force Base, Calif., in the amount of \$160,000.00 for services and materials for progressive maintenance, major repairs, and other items necessary to maintain two (2) EC-121K type aircraft.

Total cost of these contracts is \$575,739.00.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: September 24, 1966

Release No. 66-48

GERMAN BARIUM CLOUD

EXPERIMENT LAUNCHED AT WALLOPS

A cooperative experiment between the Max Planck Institute of Munich, Germany, and the National Aeronautics and Space Administration was launched from Wallops Island, Va., at 5:13 a.m. EDT today.

The chemical barium and copper oxide payload was developed by a scientific team headed by Professor Reimar Luest, Director of the Max Planck Institute.

The big colored clouds, illuminated by the sun's rays, were visible for hundreds of miles. A similar launch is scheduled for 5:51 a.m. EDT tomorrow morning.

Launched on a four-stage Javelin sounding rocket, today's experiment ejected barium clouds at altitudes of about 310 and 570 statute miles. The artificial clouds first appeared light green tinged with red. As they enlarged, the clouds turned blue and formed elongated patterns, several hundred miles long, along the lines of the earth's magnetic field.

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The experiments are based on an agreement between the Ministry of Scientific Research of the Federal Republic of Germany and the NASA. Primary objective is to obtain measurements of electric fields and wind motion in the upper atmosphere by photographing and tracking the movement of ionized barium clouds. Tracking stations are located along the Virginia-North Carolina coast and in Bermuda.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: September 25, 1966

Release No. 66-49

SECOND BARIUM CLOUD EXPERIMENT

LAUNCHED AT WALLOPS

The second of a series of two barium vapor cloud experiments was conducted at 5:51 a.m. EDT today at Wallops Island, Va.

A cooperative project between the German Ministry of Scientific Research and the National Aeronautics and Space Administration, the chemical payloads were developed by scientists of the Max Planck Institute of Munich, Germany.

Today's experiment was launched by a Nike-Tomahawk sounding rocket. Portions of the mixture of barium and copper oxide were ignited and ejected at three separate times during the flight of the rocket--at about 125 and 160 miles altitude during ascent and again at 160 miles altitude during descent. The three distinct green-red-blue clouds were visible for hundreds of miles.

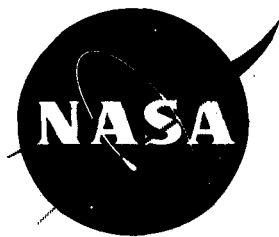
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The artificial clouds were photographed and tracked from several sites along the East Coast and in Bermuda. Purpose of the experiments is to measure electric fields and wind motion in the upper atmosphere.

The first of the two experiments was launched from Wallops Island at 5:13 a.m. EDT yesterday. Ralph D. Welsh was the Project Engineer for Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: November 9, 1966

Release No. 66-53

ARGENTINE SOUNDING ROCKET

TESTED AT WALLOPS

Argentina's Orion II sounding rocket was successfully flight tested in two of three attempts November 4, 7 and 9 at Wallops Island, Va., East Coast launch site of the National Aeronautics and Space Administration.

The November 7 launch ended in failure after six seconds of flight. Possible causes of the failure are under study.

The vehicle was designed for upper atmospheric and space research by the Instituto de Investigacion Aeronautica y Espacial (IIAE) of Cordoba, Argentina. Arrangements for the launchings were made by NASA and the Argentine Space Commission (CNIE).

The single-stage solid fuel sounding rocket is approximately 8 inches in diameter and about 12 feet long. Rocket and payload weigh about 286 pounds (130 kilograms).

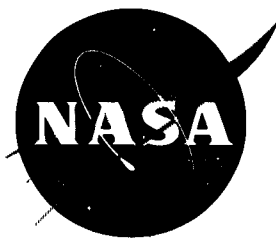
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The Orion II is capable of boosting 30 to 40-pound payloads to altitudes of 55 to 70 statute miles (90 to 110 kilometers). The payload assembly consists of a metal nose cone with internal structures for the installation of instrumentation and telemetry equipment.

In the vehicle performance test flights at Wallops the nose cone was instrumented with temperature sensors and a telemetry transmitter. For the November 9 flight, it also carried a small parachute which was deployed, as part of the test, to decelerate the payload after separation. The parachute and payload were snared by a helicopter in mid-air at about 2,500 feet, as they descended toward the surface of the ocean, and returned to Wallops Station. This was Wallops' first mid-air recovery operation.

A team of six Argentine engineers and technicians from the Aeronautical and Space Research Institute (IIAE), headed by Miguel Sanchez Pena as Project Director, assisted Wallops personnel with the launch operations. Harvey Needleman was the Project Engineer for Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: NOVEMBER 10, 1966

Release No. 66-54

WALLOPS SCORES A FIRST IN AIR RECOVERY

In mid-air over the Atlantic Ocean yesterday afternoon NASA's Wallops Station recovered a rocket-launched parachute and payload with a helicopter. This operation was a first for Wallops and apparently a first in the United States.

The payload was launched on an Argentine Orion II sounding rocket at 12:43 p.m. EST in a successful flight performance test of the vehicle.

The 44-pound payload was ejected at apogee of about 51 statute miles and the parachute deployed immediately as programmed. Using radars at Wallops Station, the helicopter was vectored to an intercept position.

The package was snared in mid-air about 2,500 feet above the surface of the ocean. The operation occurred at T-plus 57 minutes some 75 miles offshore from Wallops Island. In

-more-

less than an hour after recovery, the package was landed safely at Wallops Station for study.

The technique used to accomplish this mission was developed by engineers at Wallops. In general, the maneuver requires that the helicopter and trailing catch apparatus move into a downwind position and descend vertically at nearly the same rate as the parachute. The catch is effected as the chute drifts into the tethered hook.

The air snatch was made by a contract helicopter and crew from Petroleum Helicopters, Inc., of Lafayette, La., piloted by O. E. McKenzie.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: 4:00 p.m. Saturday
November 12, 1966

Release No. 66-55

NASA/BRAZIL ECLIPSE ROCKET PROJECT SUCCESSFUL

Today, November 12, was total solar eclipse day in South America, where many experiments were conducted by scientists to study effects of the eclipse. The following message was received at Wallops Station this afternoon from Administrative Officer Joseph E. Robbins at the special solar eclipse launch site near Rio Grande, Brazil, which is manned by a team of about 25 Wallops personnel:

"Launchings began at 9:00 a.m. Brazil time (which was 7:00 a.m. Wallops time) and continued for four hours as planned. Fifteen (15) vehicles were fired and all experiments appeared to be successful. About 20,000 people were on the beach to watch the launchings."

Wallops Station Director Robert L. Krieger, also at the Brazil site, stated in a special message that the rocket launching project was a spectacular success, with every rocket firing exactly on time and performing normally.

Wallops personnel will return home in a few days, some having been in Brazil six weeks or longer.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: November 30, 1966

Release No. 66-56

UNIVERSITY OF NEW HAMPSHIRE

EXPERIMENT SUCCESSFUL

A cosmic ray and ionospheric experiment for the University of New Hampshire was conducted by the National Aeronautics and Space Administration today at Wallops Island, Va. The launch vehicle was a two-stage, 30-foot long Nike-Tomahawk sounding rocket. Liftoff occurred at 2:06 p.m. EST.

Objective of the flight was to provide data on neutron intensity at different altitudes, solar x-ray fluxes, Lyman-alpha radiation, and electron densities in the ionosphere. Data from the neutron measurements will help scientists determine whether the neutron leakage intensity is an effective source for trapped radiation in the inner Van Allen belt. Lyman-alpha and x-ray radiation measurements will be correlated with the electron densities observed in the lower ionosphere.

The 120-pound payload reached a peak altitude of 223 statute miles and impacted 142 miles downrange in the Atlantic Ocean. Payload instruments were housed in an aluminum cylinder and a

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fiberglass section capped with a 30-inch clamshell nose cone.

Total payload length was 105 inches.

The protective nose cone was programmed to eject after rising through the atmosphere to an altitude of about 115 miles. Measurements obtained were radioed back during the flight and recorded at ground receiving stations.

Dr. J. A. Lockwood of the University of New Hampshire was the Project Scientist, with Dr. R. E. Houston as Co-investigator. H. R. Pedolsky of NASA's Goddard Space Flight Center was the Vehicle Manager. Dempsey B. Bruton was the Project Engineer for Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: December 5, 1966

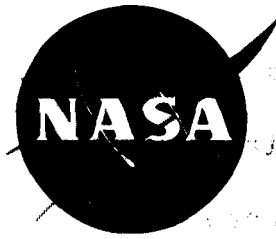
Release No. 66-57

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has issued invitation for bids for services and materials necessary for renovation of Building D-10 in accordance with Specification No. P-1581.

Under U. S. Government procurement practices, the job will be awarded to a small business firm. Bids will be received until 2:00 p.m. EST January 10, 1967.

Plans and specifications may be obtained from the Procurement Office, Building E-107, NASA Wallops Station.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WALLOPS STATION, WALLOPS ISLAND, VIRGINIA 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: December 12, 1966

Release No. 66-58

SECOND PROJECT SCANNER

EXPERIMENT

LAUNCHED AT WALLOPS

An instrumented capsule was launched last Friday night on a sub-orbital trajectory 438 miles above the Atlantic Ocean in a research experiment to gather information on the Earth's horizon.

This was the second in a series of Project Scanner rocket launches by the National Aeronautics and Space Administration in support of work in the design of navigation and stabilization instruments for spacecraft of the future. This experiment was similar to the August 1966 launch, but will provide data under different seasonal conditions.

The 550-pound space probe was launched by a three-stage solid propellant Trailblazer vehicle from NASA's Wallops Station, Wallops Island, Va., at 9:42 p.m. EST December 9. The Scanner spacecraft carried a two channel radiometer to measure energy

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radiated from the horizon in two areas of the infrared spectrum. One region is within 14 to 16 microns associated with carbon dioxide in the upper atmosphere, and the other is between 20 and 40 microns associated with water vapor.

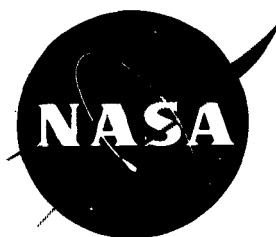
A star mapper telescope provided data on the attitude of the spin stabilized spacecraft.

Infrared horizon sensors provide a simple means of vertical orientation of an Earth-orbiting satellite and have been widely used for this purpose. However, the infrared radiation signature of the Earth, complicated by seasonal and latitude dependent characteristics of the Earth and its atmosphere, are not well enough defined to provide the necessary information for the design of the higher precision horizon sensors required for future missions.

Project Scanner is a phase of the horizon definition research carried out by the Langley Research Center under the direction of NASA's Office of Advanced Research and Technology. Howard J. Curfman, Jr., Langley, is Project Manager. Ralph D. Welsh, Jr., Wallops, was Project Engineer for Friday night's launch.

Prime contractor for the spacecraft is Honeywell Systems and Research Division, Minneapolis, Minn.

Santa Barbara Research Center developed the radiometers; the star mapper was developed by Baird-Atomic, Waltham, Mass.



NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTs. 584 and 579

FOR RELEASE: WEDNESDAY, DECEMBER 28, 1966

Release No. 66-59

NASA WALLOPS LAUNCHES

OVER 300 EXPERIMENTS IN 1966,

ENGAGES IN INTERNATIONAL SPACE EXPLORATION

More than 300 scientific experiments were sent aloft in 1966 by the National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va.

These launchings were conducted for teams of scientists in government, universities, industry, and foreign countries. Many were designed for upper atmosphere and meteorological research. Others involved ionospheric studies, solar physics, astronomy, biological studies, and in-flight testing of instrumentation and equipment. One was a radiation-detection satellite.

Two solar eclipse expeditions were conducted abroad in May and November, in Greece and Brazil, involving more than 20 launches. Nine rocket experiments were fired from a site at Point Barrow, Alaska, to obtain upper atmosphere measure-

-more-

ments at northern latitudes within the Arctic Circle. Six launchings were made from Wallops Island in cooperation with scientists from Argentina and West Germany. Launchings were conducted at Wallops and in Argentina and Brazil to implement the new Experimental Inter-American Meteorological Rocket Network (EXAMETNET).

Other highlights of the year include:

February 9--A 210-pound payload propelled by a Scout vehicle plunged back into the Earth's atmosphere at 18,000 mph in a reentry test of low-density heat shield material.

May 1--Brazil (Natal Range) joined Wallops Island, Point Barrow, Alaska, and Churchill Research Range, Canada, in launching a series of rocket grenade experiments to obtain synoptic meteorological data.

June 10--A 170-pound Air Force radiation-detection satellite launched by a Scout vehicle. The spacecraft carried simulated human tissue and instruments to record the effects of space radiation, in the continuing study of biological hazards facing man in space.

August 17--First launch of the new Aerobee 350 sounding rocket with space research payload on board, following flight performance test in June 1965.

August 26--Four rockets fired with the passage of the Explorer XXXII satellite, to correlate measurements taken by the rocket experiments with satellite data.

September 24 and 25--Two German barium cloud experiments launched for the first time in the U.S. The huge pre-dawn multi-colored vapor clouds were sighted from many points in the Eastern U. S. and Canada.

October 7--Station Director Robert L. Krieger received NASA leadership award in Washington, D. C., for outstanding leadership in the Nation's space program.

October 31--Launched a four-stage Pacemaker vehicle to test the performance of a spacecraft heat shield design. Purpose of the mission was to obtain flight measurements of the effects of simulated Apollo Command Module geometric singularities on heating and ablator performance.

November 9--Wallops scored a first in air recovery. In mid-air over the Atlantic Ocean a rocket-launched parachute and payload were successfully recovered with a helicopter. The operation was a first for Wallops and a first in the U.S.

Twenty (20) personnel from Brazil, France, and Spain received training at Wallops Station, and a total of 143 persons from 24 countries visited the Installation.

-4-

During the year, 116 contracts in excess of \$5,000 were awarded, involving expenditures of over \$4,000,000.

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NEWS RELEASE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Wallops Station, Wallops Island, Virginia 23337

TELEPHONE: VALLEY 4-3411 - EXTS. 584 and 579

FOR RELEASE: FRIDAY, DECEMBER 30, 1966

Release No. 66-60

NASA WALLOPS AWARDS

ENGINEERING SERVICES CONTRACT

TO PHILCO-FORD

The National Aeronautics and Space Administration's Wallops Station, Wallops Island, Va., has awarded a contract for engineering support services to the Philco-Ford Corporation of Fort Washington, Pa.

The dollar value of the Cost-Plus-Fixed-Fee contract is \$360,094.00 for one year, with renewal option for two additional years. The effective date is January 1, 1967.

The contract will provide Wallops Station with a wide range of engineering support and related services in the fields of data processing, instrumentation development, range safety, and experimental facilities development. Work will be performed both on-site and off-site, as specified by individual task orders.

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The services will be furnished by the TechRep Division of Philco-Ford Corporation, 515 Pennsylvania Ave., Fort Washington, Pa. Depending on the nature of each task assignment, the work will be performed at three different sites: The Philco-Ford plant at Fort Washington, Pa.; NASA Wallops Station, Wallops Island, Va.; and at a facility to be established by the Company at Pocomoke City, Md., about 15 miles north of Wallops Station.

Services to be performed include the following: Developing computer programs and conducting processing technique studies for data acquired by range systems; studies of the flight performance of launch vehicles; evaluation of existing instrumentation systems at Wallops Station and at downrange sites to determine the nature and extent of needed improvements; planning, designing, and preparing specifications for equipment, systems, and facilities as required in support of Wallops Range Engineering Division.

When the contractor's personnel complement reaches full strength, an estimated 25 engineers and other professionals will be required.

Philco-Ford was one of 16 companies submitting proposals for furnishing these services.